Elements of Accounting

Theory and Practice

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TO
MY PARENTS

PREFACE

THE history of commercial training in America forms an interesting chapter in the educational development of the country. At first, there were no organized schools, but later the so-called business "college" came into its own. Then, public high schools and academies began to offer courses in bookkeeping and business practice. The very latest phase of commercial educational development concerns itself with university training in accounting and business organization.

Paralleling the development of business schools, we find a literature peculiarly adapted to the purposes of such institutions. These bookkeeping texts make a particular appeal to the young and immature, while their chief value lies in the abundance of drill furnished, and in the detailed information contained. It is almost solely by repetition that a knowledge of bookkeeping is imparted to the persons for whom these books are mainly intended. On the other hand, the requirements of universities and other higher institutions of learning are met by a number of excellent texts, but these are not nearly as suitable as in the case of the elementary institutions. The chief fault lies in the wide gap between the elementary books in bookkeeping and the advanced works in accounting. And this is written despite the author's indebtedness to the late Professor Charles E. Sprague's pioneer work, *The Philosophy of Accounts;* to Professor Henry Rand Hatfield's *Modern Accounting*, and to Professor Leo Greendlinger's *Accountancy Problems*, the first case book in the subject.

The purpose of the present text is to bridge the gap between bookkeeping and accounting. It presupposes a knowledge of *debit* and *credit,* and from this point conducts the serious student through the field of accounting. Elementary bookkeeping is reviewed; Single Entry is studied, compared with, and changed to, Double Entry; accounting is differentiated from bookkeeping, and is itself defined; and then the applications of accounting to bookkeeping are shown and applied. The complete set of books which accompanies the last chapter is intended to afford practice in modern practical accounting. With these four chapters as a basis, the student is introduced, in succession, to partnership and to corporation accounting, the latter including consolidations. The preparation of final statements, according to the most approved modern practice, is the subject of two full chapters. An intervening one deals with the difficult subjects of depreciation, reserves, sinking fund and investment accounting.

Chapters on the accounts of non-trading concerns, statements of affairs and deficiency accounts, and realization and liquidation, are also included. Then there have been incorporated two chapters on cost accounts, and finally a chapter on auditing.

Supplementary exercises on all chapters, together with sample examination papers from various sources, have been furnished for additional practice.

The aim of the writer has been to make available, within moderate compass, a text which will appeal to the student of accounting, to the teacher and to the business man, alike. For this reason, no pains have been spared to make the explanations simple, clear and logical; ample exercises have been furnished; disputed topics have been stated in such a way that, though they lack no proper emphasis, dogmatism is nevertheless avoided. Illustrations of each of these statements abound throughout the book. The first is well shown in the chapters dealing with such difficult subjects as Statement of Affairs and Realization and Liquidation, as well as in the practical problems solved in every chapter. The sufficiency of exercises is shown by the lists appended to each chapter and in the two appendices. Perhaps the two chapters dealing with Final Statements afford as good examples as any other of what success has been achieved in the attempt to avoid dogmatism and still retain authoritativeness.

Many acknowledgments for help are in order—far too many to mention specifically. Principal among those who cannot be cited individually are the many earnest students whose uncomplaining efforts made the final work possible. My colleague, George Kent Hinds, LL.B., C.P.A., has extended many courtesies and much help. Dr. Joseph Kahn, Instructor in New York University, has kindly loaned me his valuable manuscript notes on law and has also been of aid throughout the preparation and revision of the book. Professor Henry Rand Hatfield, who read the proofs, made many valuable suggestions. Mr. Charles Hart, Head of the Department of Business Practice in the Washington (D. C.) High Schools, assisted materially by his suggestions regarding the details. Mr. John R. Loomis, C.P.A., ex-President of the American Association of Public Accountants, formerly Chairman of the New York State C. P. A. Examination Board, kindly read some of the proofs, and did much to fix the point of view of the book. Mr. S. Bernard Koopman, Instructor in Accounting, Columbia University, helped materially by his painstaking criticisms and valuable suggestions. Mr. Russell T. Greene, Chairman of the Commercial Department, High School of Commerce, City of New York; Mr. Charles A. Stewart, of the Richmond Hill High School, and Mr. William Topper, C.P.A., all helped, and their aid is hereby gratefully acknowledged. Undoubtedly, most thanks are due to Profes-

sor Leo Greendlinger, C.P.A. Several years ago he arranged to collaborate with the author in the preparation of a more elementary text than the present one. Though Professor Greendlinger's professional duties made it impossible for him to complete the task, the discussions between him and the author at that time, and since then, have done much to make this a better book.

JOSEPH J. KLEIN

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ELEMENTS OF ACCOUNTING

CHAPTER I

THE FOUNDATION——BOOKKEEPING

Introduction.—Though it may be assumed that the reader has already familiarized himself with the principles and practices of bookkeeping, it is deemed desirable to summarize, briefly, the facts involved in an understanding of the subject. The usage of the more popular texts on elementary bookkeeping has been kept in mind, despite the fact that the accountant does not give unqualified approval to it, so as to be of greater service to those readers whose knowledge of the subject has been gained through the medium of the books in question.

Cash Account.—The modern teaching of bookkeeping commences with a discussion of the Cash Account. A study of this account leads to the formulation of two important rules, namely, that the Cash Account is to be debited for all money received by the business, and credited for all money disbursed by the business.

Merchandise Account.—It is usual to introduce next the so-called Merchandise Account. The need of this account is often made apparent by recalling that throughout the economic world an equivalence of exchange obtains. Thus, when we buy ten barrels of flour at eight dollars, we part with eighty dollars, but receive in return therefor an equivalent value of flour. So, also, when we sell goods, the equality of exchanges is seen to hold. But inasmuch as the Cash Account records the income and outgo of money only, it is soon evident that, in order to devise a system of bookkeeping which shall be a complete record of business transactions, other accounts than those with money or cash alone are necessary. Hence, the introduction of the now more or less obsolete Merchandise Account.

At the start, debiting and crediting of this account is deduced by reference to the Cash Account. In a sale, for instance, Cash Account is debited for the amount of money received. To record the parting with goods sold, the Merchandise Account is employed. In order to show this sale, one almost instinctively credits the account. When it is seen that such a procedure has justified itself, the rule for debiting and crediting other accounts is formulated. The rule, assuming various forms, is essentially:

A. (1)—*Debit* Cash Account whenever the business receives money, and

(2)—At the same time, *credit* another account.

B. (1)—*Credit* Cash Account for all disbursements of money, and

(2)—At the same time, *debit* another account.

It is also clear that the system of bookkeeping employed, because of the fact that entries for each transaction involve two accounts at least, is logically styled Double Entry Bookkeeping. Sooner or later, the basic principle of the system is formulated:

C.—*Debits and credits of equal amount must result from each transaction.*

Expense Account.—Following upon the student's appreciation of the essential difference between a purchase of merchandise and one of postage stamps, Expense Account is properly introduced. Its purpose is to record the expenses of the business, while Merchandise Account is reserved for the recording of goods bought to be sold again. No new rules for debiting and crediting Expense Account are necessary, because it is one of the many accounts summed up under "another account" of A (2) and B (2), previously learned.

Proprietor's Account.—The account with the proprietor is frequently presented out of its logical order, so as to make the transactions appear more real. This account affords no undue difficulty at this point, however. Consider this transaction: L. M. Rollins commences business by investing cash amounting to $2,500.00. As money is received by the business, Cash Account must be debited—A (1), and "another account" must be credited—A (2). The only other account available is that of the proprietor, hence, the entry becomes:

Cash		L. M. Rollins, Proprietor	
$2,500.00			$2,500.00

Personal Accounts.—The next transaction to greet the beginner is very likely to be a sale *on account.* Most students readily grasp the difference involved in the following transactions:

Sold to T. L. Powers, five barrels Flour at $9.00, *for cash.*
Sold to T. L. Powers, five barrels Flour at $9.00, *on account.*

The first transaction results in a debit to Cash Account and a credit to Merchandise Account. Though it is clear that Merchandise Account is properly credited in the second transaction also, Cash Account is not involved, and so should not be debited. But, by the basic principle of Double Entry bookkeeping (C), every transaction must result in debits and credits of equal amount. So, besides crediting Merchandise Account, another account must be debited. But what shall be its title? None better than "T. L. Powers' Account" can be suggested. When T. L. Powers pays us his debt, Cash Account will be debited and his account credited. It is not believed that any space, in this brief résumé, need be devoted to buying on account.

As a result of the foregoing, it should be observed that debiting and crediting might be accomplished by a sort of substitution device.

D. *The Substitution Device:*

Whenever a transaction does not involve cash, assume that it does; proceed to debit and credit accordingly; then substitute for Cash Account the name of the new account involved. As a matter of practice, though, the general rule of debiting some account for all value received and crediting some other account for all value parted with is sufficient.

The Trial Balance.—Bookkeepers employ a simple test for the probable correctness of their accounts. They realize that, inasmuch as each entry has resulted in debits and credits of equal amount, the total of all the debits should equal the total of all the credits. In so finding,

Trial Balance of L. M. Rollins

February 28, 1913

L.F.			
1	L. M. Rollins, Proprietor	250.00	3,000.00
5	Cash	3,850.00	2,300.00
9	Expense	175.00	
16	Merchandise	4,000.00	4,700.00
18	L. T. Jones	500.00	500.00
19	M. T. Smith	1,700.00	1,000.00
20	R. M. Thomas	2,500.00	
30	T. L. Billings	2,000.00	2,500.00
31	R. Jones & Co	300.00	1,000.00
33	M. Failor & Son	225.00	500.00
		15,500.00	15,500.00

they employ this mathematical axiom: "The sums of equals are equal."

A proof of this kind, called a Trial Balance, is shown on the previous page.

It is not customary, however, to "make" this sort of a proof—the Trial Balance of *totals.* Because men are more interested in knowing the *balance* of cash, rather than the total received and the total disbursed; because they care more about how much Smith owes than about the total of his purchases and the total of his payments, a Trial Balance of differences or balances is almost universally employed, and it is called *The* Trial Balance.

The Trial Balance taken from the same set of books as the previous one follows:

Trial Balance of L. M. Rollins
FEBRUARY 28, 1913

1	L. M. Rollins, Proprietor		2,750 00
5	Cash	1,550 00	
9	Expense	175 00	
16	Merchandise		700 00
19	M. T. Smith	700 00	
20	R. M. Thomas	2,500 00	
30	T. L. Billings		500 00
31	R. Jones & Co		700 00
33	M. Failor & Son		275 00
		4,925 00	4,925 00

The fact that the totals of the balances of all the accounts agree is simple of explanation. It is based upon the mathematical axiom that when "equals are subtracted from equals the results are still equal." To illustrate: The sum of the debit column in the Trial Balance of totals is $15,500.00. If from this amount we arbitrarily deduct $500.00 the sum becomes $15,000.00. But this result is accomplished by omitting the closed account of L. T. Jones. Now, if we should deduct $2,300.00 from the debit and credit totals, both sides would still be equal to each other.

Instead of so deducting this sum from the totals, let us subtract it from each side of the Cash account. The debit side becomes $1,550.00, the credit side zero. This is similar to what has been done in order to establish the balances of the accounts shown in *The* Trial Balance; that is, the amount of the lesser side has been subtracted from both sides.

An acceptable definition of The Trial Balance, then, is this: *The Trial Balance is a summary of all the balances of all the accounts.*

Progress of the Business.—Sooner or later, the student asks himself why books are kept. The most succinct answer is that they enable one to ascertain how the business is getting along, that is, its progress, and also how much the business is worth, that is, its condition.

After making reasonably sure that the books are correct by taking a Trial Balance, it is desirable that we learn how much was made or lost. It is a common practice to determine these facts by means of a Statement of Profits and Losses. Thus, the Merchandise Account may show that we bought goods costing $4,000.00, and sold them for $4,700.00, thereby gaining $700.00. But $700.00 is not the true or net profit, because we may find that in order to sell these goods we incurred expenses, or suffered losses, amounting to $175.00. The net profit is the difference between $700.00 and $175.00, $525.00. A very simple form of Statement follows:

Statement of Profit and Loss of L. M. Rollins

FOR THE PERIOD ENDING FEBRUARY 28, 1913

Merchandise sol' for	4,700 00
Merchandise cost	4,000 00
Profit on Merchandise	700 00
Less Expenses	175 00
Net Profit	525 00

Condition of the Business.—The proprietor of a business is interested not only in its progress, but also in its condition. In other words, he wishes to know how much his business is worth.

A common-sense solution suggests itself. If the proprietor invested a certain sum of money this sum plus the net profit equals the present value of the business. A form follows:

Statement of Condition of L. M. Rollins
FEBRUARY 28, 1913

Investment	3,000	00
Less withdrawal	250	00
Net Investment	2,750	00
Add net profit, as per Statement of Profit and Loss	525	00
Present Worth (net capital)	3,275	00

Statement of Assets and Liabilities.—Though the Statement of Condition determines the net capital, another form is almost invariably employed, while the one in question is used as a proof of the other's correctness. The other one is often called a Statement of Assets and Liabilities.

As the proprietor's capital is the difference between what he *owns* and what he *owes*, the Statement assumes a form wherein all the items representing values owned by, or due to, the business are grouped, and their total compared with a similar group of the concern's debts, the difference representing the net business capital. Such a Statement is shown on the following page.

The Journal.—Experience has taught us that it is not a safe plan to make entries in the accounts without some intermediate step. A simple and quite universal preliminary step consists of arranging the items to be debited and credited, in an arbitrary way, so as to indicate which

Statement of Assets and Liabilities of L. M. Rollins

AS OF FEBRUARY 28, 1913

Assets			Liabilities		
Cash	1,550	00	T. L. Billings	500	00
M. T. Smith	700	00	R. Jones & Co.	700	00
R. M. Thomas	2,500	00	M. Failor & Son	275	00
Total Assets	4,750	00	Total Liabilities	1,475	00
			Capital: L. M. Rollins, net capital	3,275	00
	4,750	00		4,750	00

account is to be debited, which credited, and for how much. The process of so indicating is termed *journalizing,* and the book wherein the indication is recorded is called the *Journal.* Entries in the Journal for an investment, a purchase, an expense item, and a sale, respectively, are now illustrated:

JANUARY 2, 1913

		Cash	3,000	00		
		To L. M. Rollins, Proprietor			3,000	00
		3				
		Merchandise	800	00		
		To Cash			800	00
		3				
		Expense	75	00		
		To Cash			75	00
		4				
		Cash	450	00		
		Merchandise			450	00

The entries are read in order:

Cash to L. M. Rollins, Proprietor, $3,000.00; Merchandise to Cash, $800.00; Expense to Cash, $75.00; Cash to Merchandise, $450.00. The word "to" is very generally omitted in bookkeeping, but accountants use it more frequently, and it is included here for the latter reason.

Even if omitted the entries are read as though "to" had been employed.

But it must not be forgotten that the Journal, as thus employed, serves simply to indicate the final result in the Ledger accounts. Hence, journalizing is an incomplete operation; the work must be *posted.* Posting consists of transferring the items from books such as the Journal to accounts. A more satisfactory definition, developed later in the study of bookkeeping, is that it consists of transferring items from books of original entry to books of subsequent or final entry.

To the Journal entries, as previously shown, there is usually added a concise, but complete, explanation of the

JANUARY 2, 1913

	Cash To L. M. Rollins, Prop.	Investment in Flour and Grain business at 43 Front St., Brooklyn, N. Y...	3,000	00	3,000	00
		3				
	Merchandise To Cash	Bot. of T. Jones Milling Co., 100 bbl. Flour @ $8.00	800	00	800	00
		3				
	Expense To Cash	P'd. January rent of store..........	75	00	75	00
		4				
	Cash To Merchandise	Sold to Harlem Grocery Co., 50 bbl. Flour, $9.00......	450	00	450	00

transaction which resulted in the various entries. The explanation is practically a statement of the transaction,—a statement which at one time was invariably recorded in a *Day-book.* Thus, the Journal becomes a combined Day-book-Journal, but bookkeepers always refer to it as *the* Journal.

The Journal page, previously shown, with the Day-book element combined, appears as on the preceding page.

A word of advice regarding the content of an original entry is in order. Each explanation must be concise, but, more important still, it must be absolutely clear, so that it shall be self-explanatory. If the bookkeeper must be called in to elucidate it, it lacks the requisite clearness.

Notes.—Instead of selling goods for cash, or on account, we may sell them "on a note." For example, on April 4, we sold to T. H. Hooper 50 bbl. flour at $9.00, on his one-month note. By the aid of the rules previously developed, we decide that the entry is *almost:*

Cash	$450.00	
To Merchandise		$450.00

Substituting "notes" for cash, according to the substitution device, or, better, because *note,* not cash, *was* received, the entry becomes:

Notes	$450.00	
To Merchandise		$450.00

But it is customary to call such notes "Notes Receivable," though many bookkeepers have been taught to term them "Bills Receivable." The corrected entry is:

Notes Receivable	$450.00	
To Merchandise		$450.00

When the note is redeemed (paid), the following entry is made:

Cash	$450.00	
To Notes Receivable		$450.00

Purchases of goods on our note are treated similarly. The entry for an $800.00 purchase is:

Merchandise	$800.00	
To Notes Payable		$800.00

When we pay this note, the entry is:

Notes Payable	$800.00	
To Cash		$800.00

As a rule, the note is not given or received contemporaneously with the purchase or sale but at some subse-

JANUARY 12, 1913

Merchandise	1,600	00		
To F. M. Moreland & Co.			1,600	00
Bo't on acct. 200 bbl. Flour.............$8.00				
31				
F. M. Moreland & Co.	1,C00	00		
To Notes Payable			1,600	00
Gave my 60-day note in full of invoice, 1/12/13.				
March 31				
Notes Payable	1,600	00		
To Cash			1,600	00
Paid my note of 1/31/13, in favor of F. M. Moreland & Co.				

JANUARY 12, 1913

L. C. Luce & Sons	900	00		
To Merchandise			900	00
Sold on acct. 100 bbl. Flour.............$9.00				
22				
Notes Receivable	900	00		
To L. C. Luce & Sons			900	00
Received their one-month note in full, 1/12/12.				
February 22				
Cash	900	00		
To Notes Receivable			900	00
F. C. Luce & Sons paid their note of 1/22, our favors.				

quent time. The Journal entries on the preceding page are self-explanatory.

The Sales Book.—Modern business has found that specialization serves it well. Not only is this fact true in the industrial and economic world of action, but also in the recording of the facts. A simple application of the principle of specialization as applied to bookkeeping is found in the Sales Journal, commonly known as the Sales Book. Instead of expressing the credit to Merchandise Account every time a sale is made, another device is employed. The following illustration should make this point clear:

Sales

January 3, 1913

	T. M. Hopkins, on account						
	20 bbl. Flour	9	00	180	00		
	50 bu. Wheat	1	10	55	00		
	100 bu. Oats		40	40	00	275	00
	5						
	C. R. Rover & Co., 2/10, n/30						
	1,000 bu. Wheat	1	08			1,080	00
	7						
	H. B. Burr & Sons, 30 days						
	100 bu. Wheat	1	11	111	00		
	50 bu. Oats		44	22	00	133	00
	Total sales					1,488	00

The reader knows that, as a result of the sale to Hopkins, his account should be debited, and Merchandise Account credited. If expressed in the ordinary Journal form, the intention would be absolutely clear. But howsoever expressed, the result in the Ledger accounts must be the same. Posting from the Sales Book is therefore indicated:—charge the buyer with the amount of his purchase, and credit Merchandise Account for the same amount. Instead of crediting the latter account each time, however, it is better to credit the total of sales for a given period, say a month, to Merchandise Account. It should be clear that in so doing the equilibrium demanded by the basic principle of Double Entry bookkeeping is observed, for the single item posted to the credit of Merchandise Account is equal to the sum of the items posted as debits to the individual accounts of the various buyers.

The Purchase Book.—This book need not detain us in the present brief summary. The Sales Book becomes a Purchase Book if there be substituted for the word "Sales" in the former the word "Purchases." The only other change affects posting. Each seller is credited for the amount of the individual invoice, while Merchandise Account is debited for the total.

The Cash Book.—Just as the Sales Book and the Purchase Book have appealed to business men, because of the greater efficiency in virtue of the fact that similar original entry items might be segregated and postings curtailed, so has the Cash Journal, the so-called Cash Book, come to stay. The brief remarks to be made will be clearer if reference is made to a few items in a sample Cash Book.

Two adjoining pages are employed for the Cash Book. The left-hand side is reserved for receipts, the other for disbursements. The column headings should make explanations of the page divisions needless for the reader. If the ordinary Journal were employed, the entry of January 2d would clearly indicate that the Cash Account was to be debited, and the account of T. R. Rollins, Prop., credited. The present device has the same ultimate purpose, and should be so interpreted. Every other item in the Cash Book may be cast into the first Journal form, but to no purpose. It might lead to the conclusion, often referred to as the rule for posting from the Cash Book, that the receipt side items should be posted to the credits of the accounts shown, the payment side items to the debits

Cash Book

CASH RECEIPTS

Date		L.F.	Acct. to be Credited	Explanation	Amount			
1913								
Jan.	2		T. R. Rollins, Prop.	Investment	3,000	00		
	15		P. Pyre	On acct.	350	00		
	27		Mdse.	Cash sale	25	00	3,375	00
							3,375	00

Cash Book

CASH PAYMENTS

Date		L.F.	Acct. to be Debited	Explanation	Amount			
1913								
Jan.	4		Expense	Jan. rent	75	00		
	16		Expense	Books, etc.	18	00		
	28		C. C. Cole	In full, inv. 1/3	400	00		
	31		Expense	Salaries	80	00	573	00
			* Balance				2,802	00
							3,375	00

* Frequently in red ink.

of the individual accounts shown. For the posting from the debit side of the Cash Book to the individual credits, we have, in this case, a debit to Cash Account of $3,375.00. Similarly, we have a credit to Cash Account of $573.00 to offset the debits to the accounts listed on the payment side. Sometimes bookkeepers do not keep a Cash Account, so, instead of posting the totals to the Cash Account in the Ledger, they employ the Cash Book as the Cash Account also. In such cases the book is a combined book of original entry and a book of final entry.

General Rule for Journalizing.—An examination of many entries, whether appearing in the Journal or in other books of original entry, themselves only specialized

Journals or posting indicators, will lead to the conclusion expressed before, that rules A (1), A (2), B (1), B (2), C, and D (pages 2 and 4) may be reduced to a more general formula still, viz.:

Debit the account which receives value or is benefited; *credit* the account which gives value or gives benefits.

The reader is supposed to be familiar with the application of the rule to the more obvious cases. Let us examine two instances apparently contradictory:

1. Received $5.00 interest on a loan.

A hasty answer would be to debit Interest Account, because interest was received. Closer inspection will reveal that the statement of the transaction should be recast so as to read, "Received $5.00 *in cash* for interest (use of money)," etc. The entry, then, is simple enough:

Cash	$5.00	
To Interest		$5.00

2. Paid my note due to-day, $1,000.00. This is an idiomatic expression for the more literal "Paid $1,000.00 cash in order to redeem my note," etc. The entry is as easy as the first:

Notes Payable	$1,000.00	
To Cash		$1,000.00

Inventories.—At any given moment of time, when it is required to ascertain the condition and progress of the business, it is necessary to take into consideration certain facts not shown by the books. For instance, the Merchandise Account shows the total purchases and total sales, but not the value of the goods still unsold.[1] The method of ascertaining this value consists of listing the goods left

[1] The accountant's criticism of this account will be found in Chapter II.

and placing a price upon them, usually the cost price. The profit on merchandise is then found as follows:

		Total Sales....................			8,000	00
		Total Purchases...............	8,300	00		
		Less cost of goods unsold.......	1,800	00		
		Cost of goods sold.........			6,500	00
		Profit on goods sold........			1,500	00

Expense Account is another example of an account which does not usually tell the whole truth at the time it is desired to learn the net profit for a given period. It shows the amount of money spent, but not the cost or value of the expenses actually consumed. Thus, if an insurance policy to run three years, and costing $75.00, has been paid for at the beginning of the present year, it is evident that only one-third of the amount actually spent should be regarded as expenses of the current year. This statement is equally applicable to other expense items, bought and paid for during the year under review, but not entirely consumed. The loss due to expense is therefore found by modifying the Expense Account of the Ledger:

		Expense, as per Trial Balance...			380	00
		Less unexpired insurance.....	50	00		
		" unconsumed coal.......	37	00	87	00
		Loss due to Expense Account...			293	00

Profit and Loss Statements, containing items similar to Merchandise Account and Expense Account, as shown above, will be found in Chapters VII and IX.

Closing the Books.—The Statement of Profit and Loss and the Statement of Assets and Liabilities are shown on sheets not part of the books. It is almost invariably desired to incorporate in the books the findings of these exhibits. The process of so doing is known as closing the books. It consists essentially of two steps: closing the accounts showing a profit or a loss into an account called Loss and Gain Account, or Profit and Loss Account, opened for the occasion; and the transfer of the net profit or the net loss to the Proprietor's Account.

The methods employed by the bookkeeper in closing the books will not be presented. The accountant's method will be shown and discussed in Chapters VII and IX.

Conclusion.—The purpose of this chapter, as already stated, was briefly to outline the content of a short bookkeeping course, so as to review the subject preparatory to the study of accounting proper. Details implied by the matter thus outlined, or closely connected with it, will be found in Chapter III.

Exercises for study have not been appended, because it is not the primary purpose of this book to give drills in bookkeeping. But, in order to show the application of accounting to bookkeeping, Chapter III will deal with advanced bookkeeping.

Summary

Bookkeeping is the art of systematically recording business transactions. The purpose of the records is to disclose the condition and the progress of the business.

Two types of books are employed: books of original entry and books of subsequent or final entry. The first kind records the transactions and classifies them by the use of rules for journalizing, so as to indicate clearly the result in the latter. The process of transferring to the latter is known technically as posting.

After posting has been accomplished, the accuracy of the operation is tested by means of a Trial Balance, a summary of all the balances of all the accounts.

The progress is disclosed by means of a Profit and Loss Statement. The Statement of Assets and Liabilities shows the condition of the business. A simple mathematical proof is available whereby to test the correctness of either Statement by means of the other.

Inasmuch as the Statements just referred to are exhibits not in the books themselves, it is customary to incorporate their findings in the books by the process known as closing the books.

CHAPTER II

ACCOUNTING

It is not an easy task to differentiate between bookkeeping and accounting. The object of this chapter is to impart an understanding of what is meant by the noun, *accountancy.* The accomplishment of this aim will be attempted in two ways: first, to tell about the functions of the accountant; and, second, to present a few of the technical differences between accounting and bookkeeping.

The Accountant is not an expert bookkeeper, though he is thoroughly conversant with the work and the duties of the latter. The accountant is often called upon to install a system of books. When he does so his ideal is maximum of information for minimum of effort. After the accountant installs the system, the bookkeeper "keeps the books," that is, he records in them the transactions as they occur, posts the items, and finally "takes" a Trial Balance. Often, at this point, the accountant is again called in to *audit* the work of the bookkeeper. This sort of auditing is essentially a review of the bookkeeping to establish its correctness. It is also usual for the accountant to prepare the Profit and Loss Statement and the Balance Sheet.

In our country, many accountants are either public accountants or certified public accountants. Both hold themselves out for engagement by the community. The latter are public accountants whose ability has been attested to by certain state officials, and who have received the degree of certified public accountant (C. P. A.). These are generally recognized as the truly professional men. The student should not rest content until he has attained the highest goal which awaits him in his chosen field.

Specialization, so apparent all about us, has not been entirely impotent in the field of accountancy. The work is already somewhat divided among specialists, though, as yet, this is the exception rather than the rule. Cost accountants are specialists who devise means whereby may be ascertained the cost of producing units of commodities or service. Systematizers are engaged in so organizing the accounting of a concern as to give most satisfactory results. Efficiency engineers, interested in the factory as well as in the records, are ever coming into greater prominence. The so-called "business doctor," the all-around expert accountant, is consulted whenever unusual business situations arise. The consulting accountant is the man of long and varied experience, whose advice is sought by the younger practitioner.

Before we go to the technical side of the subject it is well that we do not deceive ourselves. It is not the intention of this book to make of the reader an expert accountant. Enough will have been accomplished if the foundation for the more advanced study shall have been laid, and if the appetite shall have been whetted for such advanced work. And, moreover, accounting is a single one, though the major one, of the many subjects in which the student must be trained before he shall be deemed proficient in his profession.

Distinctions between Bookkeeping and Accounting.—There are several technical distinctions between bookkeeping and accounting, among which are the following:

1. Classification of Accounts.—The reader is probably familiar with certain classifications of accounts. Some bookkeeping texts group them into two classes, namely, accounts of business and accounts of finance. Others divide all accounts into those showing gains or losses and those showing assets or liabilities. These are not the only divisions in use, but we do not propose to exhaust the list.

Many accountants employ an entirely different classification. They divide accounts into two classes: Personal and Impersonal. The former comprises accounts with debtors, with creditors, and with the proprietors in unincorporated concerns. Impersonal Accounts are divided into Real Accounts and Nominal Accounts.[1] Real Accounts include assets and liabilities, while Nominal Accounts correspond to the profit and loss accounts of the more familiar classification.

Examples of the group of personal accounts have already been presented. Illustrations of Real Accounts (from the Latin, *res*, a thing, something tangible) are Cash, Real Estate, Machinery, Fixtures, Merchandise, Inventory, Investments, Notes Payable, Mortgages, etc. Nominal Accounts (from the Latin *nomen*, a name, hence verbal, *not* real) include Interest, Expense, Discount, Wages, Salary, Freight, Advertising, Purchases, Sales, etc.

The value of classifications, such as those under consideration, lies in the fact that whatever we learn regarding the general qualities of any individual account is equally applicable to all the other accounts in the group. Hence, classification is simply a means making for the more economical employment of the memory. Practical applications of the value of the classifications will be found in Chapter IV and in Chapters VII and IX.

2. Capital versus Revenue.—The bookkeeper insists that, for every transaction, the debit and credit entries shall be equal in amount. The accountant is no less exacting in insisting upon this. But, in such transactions as the following, the difference in mental attitude is revealed:

[1] Except in changing from single entry to double entry (see Chapter IV), the functional classification into Asset and Liability Accounts and into Profit and Loss Accounts is the more useful.

(a) **Paid $10.00 for shoeing horses.**
(b) **Paid $200.00 for painting factory building.**

In the first case the bookkeeper might be satisfied with:

Horses and Wagons	$10.00	
To[1] Cash		$10.00

and, in the second, with:

Building (or Real Estate)	$200.00	
To Cash		$200.00

because the equilibrium between debits and credits has been maintained, so that the Trial Balance will "prove."

The accountant, on the other hand, while insisting with equal emphasis that the Trial Balance be kept correct, has a more important goal before him. He has in mind the Balance Sheet. He realizes that if, in transaction (*a*), *above*, a Capital Account like Horses and Wagons be charged for an expense, as the horses grow older and less valuable, as a matter of fact, their book value will continue to increase. As a result, the Balance Sheet will tend to show the worth of the business above its true figure. So also in the second case. He knows that to charge Building or Real Estate will tend to inflate the value of the asset in question. Hence, to avoid such overstatement in values on the Balance Sheet, Stable Expense Account and Repairs Account, respectively, will be charged.

This confusion between charges to capital instead of to revenue, that is, between debits to a Real Account instead of to a Nominal Account, is a very common one. The auditor is always on the watch for it, for, in the past,

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[1] The preposition "to" is inserted, not because it is essential, but in deference to the renewed custom of accountants.

it has been responsible for much confusion, and even for fraud. But we need not pursue the topic any further now, as the reader will meet with it again.

3. Merchandise Account.—The late Professor Sprague, in his lectures at the New York University School of Commerce, Accounts, and Finance, and in his *Philosophy of Accounts,* pointed out the fault of the Merchandise Account as often kept. On the debit side are to be found the inventory at the beginning of the period, and the purchases and return sales during the period; on the credit side, sales and return purchases during the period, and the inventory at the end of the period.

If the amount on the credit side is greater, the difference represents a profit on merchandise; in the reverse case there is a loss.

For purposes of illustration consider the following:

Merchandise

1913					1913				
Jan.	2	Inventory	3,200	00	Dec.	31	Total Sales	12,100	00
Dec.	31	Total Purchases	9,000	00			Total Ret.Purchs.	500	00
		Total Return Sales	700	00			Inventory	2,400	00
		Profit	2,100	00					
			15,000	00				15,000	00

Professor Sprague's criticism is based on the fact that the Merchandise Account as shown above is a mixed account. It is apparent that the inventories deal with tangible things, hence they are included among Real Accounts, while purchases and sales, return purchases and return sales, are examples of Nominal Accounts. But the objection to this mixed account is based on even more practical grounds. In order to find what the percentage of profit has been the account must be recast.

Thus, the cost of goods sold is found as shown on the next page.

Inventory at beginning		3,200.00
Purchases	$9,000.00	
Less returns	500.00	8,500.00
		11,700.00
Less inventory at present		2,400.00
Cost of goods sold		9,300.00

The proceeds of goods may be determined thus:

Sales	12,100.00
Less return sales	700.00
Net proceeds of goods sold	11,400.00

$11,400.00 less $9,300.00 = $2,100.00 profit on goods sold.

$\frac{2,100}{9,300} = 22\%$ gain on goods sold.

It is to be noted, too, that the information just found involves a greater amount of labor than here indicated, because the Merchandise Account in any given case will contain many more items than shown in the illustration.

As Professor Sprague put it, "an account which has to be made over should have been made right at first."

Criticism should not be merely destructive. It should lead to improvement. Instead of employing the conglomerate account under discussion, it is suggested that three accounts be substituted, namely, Merchandise (Inventory), Purchases, Sales.

The Merchandise Account is a Real Account. It contains the inventory as found at the beginning of a period, and is closed into Purchases. The Purchases Account is a Nominal Account, showing on the debit side the purchases plus the inventory transferred from Merchandise Account, and, on the credit side, the purchases returned. The difference represents the cost of goods sold, unless some goods are still left. When goods are left, the amount of the inventory must be deducted by crediting the Purchases Account; the difference then represents the cost of goods sold. Sales Account is credited with all sales and charged with all goods returned, the balance being the net sales. A comparison between the balance of this account and that of Purchases Account reveals the gain on merchandise.

It is sometimes advisable to keep, in addition to these three accounts, two others. Return Sales Account and Return Purchases Account, respectively, are the titles of the other two.

What to do when the books contain a Merchandise Account remains to be shown.

4. Reconstruction of the Merchandise Account.—In the last section it was pointed out that accountants no longer approved of the mixed Merchandise Account, but employed in its stead three other accounts. These are Merchandise (Inventory) Account, Purchases Account, and Sales Account. When the accountant organizes a set of books he provides for the modern method of recording the three elements which formerly entered into the composite Merchandise Account. A different problem confronts the auditor who is called upon to investigate a set of books which contains the old mixed account.

If the books are to be closed the Merchandise Account should be analyzed as shown herewith:

Merchandise

1913						1913					
June	1	Investment	J1	1,000	00	June	3	Sales	J2	800	00
	4	Purchases	2	500	00		6	Sales	3	410	00
	6	Purchases	3	1,000	00		6	Pur. returns	3	40	00
	8	Sales returns	5	50	00		8	Pur. returns	5	100	00
	15	Purchases	6	2,000	00		13	Sales	5	900	00
	18	Sales returns	6	80	00		15	Sales	6	750	00
	24	Sales returns	9	65	00		17	Sales	6	350	00
	26	Purchases	12	1,500	00		19	Pur. returns	7	25	00
							25	Sales	11	1,200	00
							30	Sales	14	825	00

Let us assume that, as a result of posting a month's transactions, the Merchandise Account, with explanations inserted so as to aid us to understand the same, is as above.

If we wished to ascertain our profit on merchandise it would be desirable to know the cost of goods sold and the proceeds of sales. To find the cost of goods sold we require (at least) the value (*a*) of the goods on hand originally, and (*b*) of the net purchases. But the amount of net purchases is not very easily ascertainable. In this case it is the sum of $500.00, $1,000.00, $2,000.00, $1,500.00, less the sum of $40.00, $100.00, $25.00, or $4,835.00. The proceeds of sales, the net sales, are similarly obtained. From the total of the sales we must deduct the total of the return sales, that is, from the sum of $800.00, $410.00, $900.00, $750.00, $350.00, $1,200.00, $825.00, deduct the sum of $50.00, $80.00, $65.00, or $5,040.00.

It should be clear that, in actual practice, where many more items would be found and where the explanation space would probably not be filled in, the task just completed would be a much more complicated one. For this reason accountants advocate the employment of the separate accounts for the complex Merchandise Account. The late Professor Sprague used an unanswerable argument in favor of the three accounts when he insisted that all accounts should begin "right." The three accounts are Merchandise Inventory Account, Purchases Account, and Sales Account.[1] If these three had been employed in the example given we should have had:

Merchandise Inventory

1913 June	1		J1	1,000	00						

[1] The terms "Mdse. Purchases a/c" and "Mdse. Sales a/c" are often used instead of the last two.

Purchases

1913					1913				
June	4	J2	500	00	June	6	J3	40	00
	6	3	1,000	00		8	5	100	00
	15	6	2,000	00		19	7	25	00
	26	12	1,500	00					

Sales

1913					1913				
June	8	J5	50	00	June	3	J2	800	00
	18	6	80	00		6	3	410	00
	24	9	65	00		13	5	900	00
						15	6	750	00
						17	6	350	00
						25	11	1,200	00
						30	14	825	00

Observe how easily the total purchases are obtained from the debit side of Purchases Account and the returns from the credit side. The credit side of Sales Account supplies the total sales while the debit side shows the returns. The Inventory Account requires no comment.

If, however, an auditor had been called in before the close of the fiscal period, so that the books are not to be closed but are to be continued, his task would be a more difficult one. He would have to analyze the Merchandise Account as already shown, and in addition he would have to substitute for it the modern form.

Let us take as our example the Merchandise Account shown in this section, and proceed to show how to adjust it so as to set up the three accounts which are to take its place. When our work has been completed the old account must be closed, and each of the three new accounts must show the amounts which the analysis disclosed.

(*a*) The following Journal entry will set up the inventory item and remove it from the Merchandise Account:

Merchandise (Inventory)	$1,000.00	
To Merchandise		$1,000.00

(*b*) The next entry will charge the Purchase Account with the net purchases of merchandise for the period, that is, with the difference between the total purchases and the total return purchases. At the same time it will remove this net amount from the old account:

Purchases	$4,835.00	
To Merchandise		$4,835.00

(*c*) The final Journal entry will credit the Sales Account with the net sales of merchandise for the period under review, and at the same time close the old Merchandise Account:

Merchandise	$5,040.00	
To Sales		$5,040.00

Upon posting these three entries Merchandise (Inventory) Account will be debited with $1,000.00, the value of goods on hand at the beginning of the period; Purchases Account will be debited for the net amount of purchases, $4,835.00; Sales Account will be credited with the net sales, $5,040.00; and the old Merchandise Account will be closed.

As was stated before, some accountants prefer to employ five accounts instead of three. The additional two are Return Purchases Account and Return Sales Account. A change in the amount of the last two Journal entries and two additional entries to establish the extra accounts are necessary to effect this change. The student should try to solve this problem for himself, but it is suggested that many practitioners see no reason for the establishment of the return accounts.

5. Multiplication of Accounts.—An axiom of accounting is that the title of each account shall be clearly self-descriptive. Another is that there shall be no mixed accounts such as Merchandise account, discussed previously. And still another is that general accounts shall be broken up into their component parts, unless by so doing the gain in clearness shall be offset by loss in time.

Accountants favor such titles as Interest Earned, Interest Lost, Interest Accrued, Interest on Notes, Cash Discount Lost, Interest on Mortgage, Doubtful Debts, Bad Debts, etc. These names are merely suggestive of what is meant by self-descriptive titles, as no attempt will be made to explain their use in the present connection.

Instead of employing a General Expense Account, there is much to be said in favor of breaking up such an account into Expense, Wages, Salary, Collection and Exchange, Expressage, etc, if the volume of business justifies the action. The advantage accruing from such usage cannot be entered into here, it being understood that the present is simply an attempt to make clear some of the cardinal points in accounting.

6. The Books Are to Show All Essential Facts.—No real difficulty arises in this connection until one comes across a class of items known as contingencies. For our present purpose a simple example of a contingent liability must suffice.

When we receive a note as a result of a previous sale of goods invoiced at $500.00, the entries up to this point are:

(*a*)	Customer	$500.00	
	To Sales		$500.00
(*b*)	Notes Receivable	500.00	
	To Customer		500.00

If this note is discounted, the entry therefor is frequently given as:

[1] (*c*)	Cash	$498.00	
	Discount on Notes	2.00	
	To Notes Receivable		$500.00

Accountants object to the foregoing on the valid ground that the entry does not truly and fully express the present status of the business in relation to the transaction. The reader knows that, in order to effect a discount of a note, the holder must indorse it. Indorsement, among other things, carries with it the obligation that, in case of default by the maker, the indorser shall be responsible for the payment of the note. At the time the note is discounted, and until such time as it matures and is properly redeemed, a liability exists, and the liability should be shown. The following entry is the one employed instead of (*c*) to show the contingent liability discussed:

(*c*-1)	Cash	$498.00	
	Discount on Notes	2.00	
	To Notes Receivable Discounted		$500.00

On the Balance Sheet, instead of including the contingent liability among the liabilities, it is deducted from the corresponding asset. In this case Notes Receivable Account, with a balance of, say, $3,200.00, would appear on the asset side, as follows:

Notes Receivable	$3,200.00	
Less Notes Receivable Discounted	500.00	$2,700.00

It should be quite clear that the balance is exactly what it would have been were entry (*c*) made instead of (*c*-1) above, thus showing that we have in our posses-

[1] In this volume original entries, regardless of which books the record would actually appear in, will be given in Journal form. The reason for this decision is that this is the usual convention, and, moreover, no other form enables one so easily to indicate debits and credits.

sion only $2,700.00 of notes, but with the additional information that we have outstanding discounted notes which we may *possibly* be called upon to redeem in the event of default.

When the note is finally redeemed, thus freeing the indorser from the contingent liability in effect till then, an entry is made to cancel the liability, which, at the same time, adjusts the Notes Receivable Account:

(*d*)	Notes Receivable Discounted	$500.00	
	To Notes Receivable		$500.00

7. Extra Columns in Books of Original Entry.—In order to make possible the full use of the many additional accounts to which reference has already been made, special or extra columns are introduced in books of original entry. The purpose of these columns is to minimize the burden of posting. For example, if a column were added to the credit side of the Cash Book, it might be used for all expense items. If, during any month in question, there occurred thirty separate items chargeable to this account, the special column would save twenty-nine distinct postings, because the total of the column could be transferred in a lump sum. Examples will be found in Chapter III.

8. Controlling Accounts.—The statement is sometimes made that the introduction of so-called Controlling Accounts marks the point of accountancy's divergence from bookkeeping. The author has very little sympathy with such statements. It is true that the accountant employs controlling or summary accounts whenever possible, and it is for this reason that the subject is included in the present chapter.

Accounts Receivable is the term applied to the summary of all the balances of our debtor's accounts. It represents the total of the outstanding open accounts in our favor. By using special columns, and an extra Ledger wherein to keep accounts with our customers, we obtain a most convenient control or "internal check." Instead of trying to understand the workings of such a controlling account from a general description, let us pursue the subject in detail.

The first step in establishing bookkeeping relations with a customer consists of a sale. This item is entered in the Sales Book, and so are other sales. Posting is made by charging each customer with the amount of his purchase, in a special or subsidiary Ledger called the Customers' Ledger, Debtors' Ledger, Sales' Ledger, or Accounts Receivable Ledger. At the end of a period, usually at the end of each month, the total amount of sales is posted to the General Ledger; Accounts Receivable, Customers' Ledger Controlling Account, Sales Ledger Controlling Account, or Debtors' Ledger Controlling Account, is debited, and Sales Account is credited.

Accounts Receivable, or any corresponding account employed, will contain a single item, on the debit side. This General Ledger Account will now show the sum owed the concern by all the customers. One qualification—a very important one—is necessary. The account in the General Ledger, or the sum of the accounts in the special Ledger, represents the amount owed to the firm, provided no payments have been made. These payments are most frequently in cash, sometimes by means of notes, and sometimes by offsets resulting from goods returned to us. It remains to show how such items are to be treated.

Cash received may be a part payment, a payment in full of account, or a prepayment so that a discount is to be allowed. To handle these items most expeditiously, the debit side of the Cash Book must contain at least three columns. The first is labeled Accounts Receivable, or to correspond with the General Ledger Account selected, the second, Discount on Sales, and the third, Net. Payments in full of account, or in part, are entered in the first and third columns. Prepayments are recorded so that the actual amount of payment is shown in the third column, the allowance in the second, and the amount canceled or settled for in the first.

The individual customer's account, in the special Ledger, is credited each day, the amount being taken from the first column. At the end of the month the total of this first column is credited to the Controlling Account in the General Ledger, so that the single credit to the Controlling Account equals the sum of the individual credits to the separate customers' accounts in the special Ledger, thus maintaining the desired check.

But we must still account for debits in the General Ledger to offset the credit to the Controlling Account. The third column represents debits to Cash Account. Its sum is less than the sum posted to the Controlling Account, and the difference is found in the column headed Discount on Sales. We do not have to post the net cash column actually, for the Cash Book may be regarded as the equivalent of a Cash Account for this purpose. Hence, as a result of the three columns under discussion, we have a credit greater than the corresponding debit. To establish the necessary equilibrium, the sum of the second column is posted to the debit side of Discount on Sales. Were additional statement necessary, it is easily demonstrated that the last entry is correct. If a Journal were employed, each prepayment would appear in this form:

Cash	$990.00	
Discount on Purchases	10.00	
To Customer (Accounts Receivable)		$1,000.00

Now, inasmuch as each entry results in a charge to the Discount Account, it should be clear that the total charge to the same account is likewise correct. Eventually the student will be able to decide upon whether to debit or credit such an account as this without formal reasoning. In this case, for example, he should have decided upon a debit entry, because the items represented losses to the business.

Entries for notes and for return sales remain for consideration. Though the practice is not nearly universal, these transactions are usually entered in the Journal. The Journal must have a special column for all items affecting the Controlling Account so as to provide for posting of totals. Type entries for a note and a return follow:

(*a*)	Notes Receivable	$1,500.00	
	To Customer		$1,500.00
(*b*)	Return Sales	$65.00	
	To Customer		$65.00

In both cases the debit entry is to accounts in the General Ledger. To correspond to the individual credits posted to the separate customers' accounts in the separate Ledger, there must be a summary posting to the Controlling Account in the General Ledger. This object is attained by providing an extra column on the credit side of the Journal, headed with the title of the Controlling Account.

A brief résumé will make clear how this Controlling Account is an effective check. The debit side shows the total of all the debits to all the accounts in the special Ledger. The credit side contains two items which, together, equal the total of all the items posted to the same list of individual accounts in the subsidiary Ledger. It follows, therefore, that the balance of the General Ledger account equals the sum of all the balances in the special Ledger.

Besides acting as a summary and a check, Controlling Accounts serve another very useful purpose. When a Trial Balance is to be taken, instead of listing all the accounts representing debts receivable, the summary is employed. In this way a Trial Balance of a concern's books containing many thousands of accounts may be obtained in a very short time. Subsequently, and at a convenient time, the summary account is compared with a schedule of the individual balances.

Accounts Payable, Creditors' Ledger Controlling Account, or Purchase Ledger Controlling Account, is the title of the other chief example of Controlling Accounts. The principle upon which it is operated, and the function it serves, are similar to those presented in reference to Accounts Receivable.

It is not deemed necessary to describe Accounts Payable in any great detail. The first entry to it is a credit made from the Purchase or Invoice Book. This posting of the total amount of purchases corresponds to the individual credits posted to the separate accounts in the special Ledger. On the credit side of the Cash Book, corresponding to the extra columns on the debit side, are Accounts Payable, Discount on Purchases, and Net. The General Ledger account is debited with the total of its column, the individual accounts having been charged previously. In the Journal, a column for the Controlling Account is found on the debit side.

Chapter III, following, contains practical application of the points made in this section.

9. **Forms.**—No outline of accounting could be called complete without some reference to the forms employed by the practitioner. These forms include financial and other papers and documents, books, and statements. Though some of the accountant's success is due to his ability to create forms for the better recording and collecting

of facts, the limitations of space make it impossible to give much attention to this subject in the present text. Individually, however, many forms will be introduced in connection with other matters.

There are those who hold that the attainment of high technic of expression is the earmark of the good accountant. Though a knowledge of this technic is very desirable, it is more essential that the basic work be thoroughly mastered. Hence, the student should be on his guard lest he interpret his ability to reproduce the forms shown herein as an understanding of them. It is much more important, for example, that the student grasp Professor Sprague's statement that the assets equal liabilities plus proprietorship, or that assets minus liabilities equal proprietorship, than that he be able to draw up a proper form of Balance Sheet.

10. **Graphs.**—Unfortunately, the accountant has scarcely commenced to appreciate of what aid the graphic form of expression can be to him. By its means, complicated figures are transferred into simple statements, so that one may literally read as he runs.

The device consists of drawing a line, called a curve, through a series of points placed on what is known as engineer's or plotting paper, or chart. Suppose it were desired to "plot" the temperature of a patient on the basis of the following figures:

Patient's Temperature Readings:

12 M.	99	10 P. M.	100
1 P. M.	99.2	11 P. M.	99.8
2 P. M.	99.3	12 P. M.	99.6
3 P. M.	99.5	1 A. M.	99.5
4 P. M.	99.7	2 A. M.	99.2
5 P. M.	99.7	3 A. M.	99.2
6 P. M.	99.6	4 A. M.	99.2

Patient's Temperature Readings (Continued):

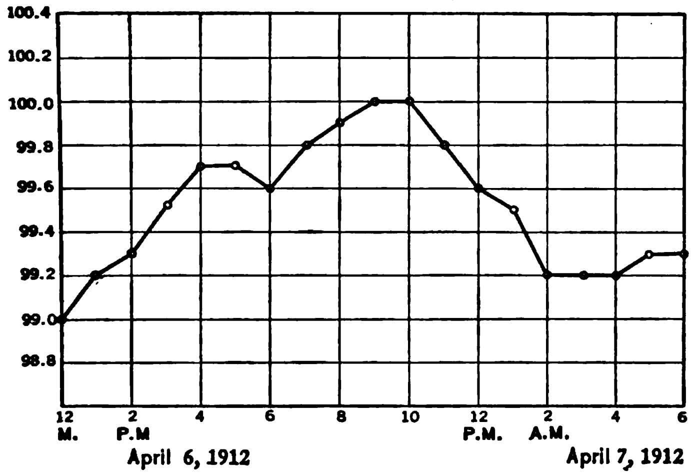
7 P. M.	99.8	5 A. M.	99.3
8 P. M.	99.9	6 A. M.	99.3
9 P. M.	100		

Instead of consulting this list of figures representing the thermometer readings at different times, a much clearer notion is obtained in the following way:

TEMPERATURE READINGS.

Patient..............................

Ward..............................



Let the time be indicated along the horizontal line, the degrees along the vertical one. Place a dot along the vertical line denoting 12 M. at 99°. Place another dot where the vertical line representing 1 P. M. and the horizontal line for 99.2° intersect each other. Construct similar dots for the other hours, and connect them with a smooth line. Having done so, you will have established the chart shown above. The rise, fluctuation, and fall in temperature are much more evident in the graphic form than they could have been by any arrangement of figures.

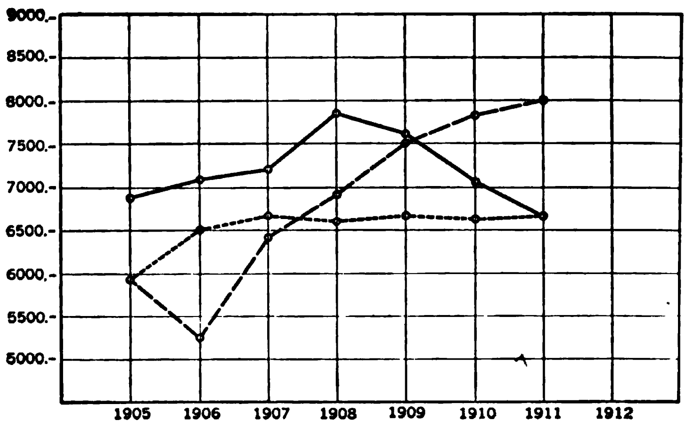
The business and accounting applications of graphs are almost unlimited. Percentages of all sorts, comparisons, progress of departments, and many other business items lend themselves to this form of expression. Before closing this chapter a single example will be shown.

Problem: Required, a chart to show the selling progress of three salesmen from the following tabulation:

Salesmen	1905	1906	1907	1908	1909	1910	1911
R. T. Riley....	$6,800.00	$7,100.00	$7,200.00	$7,800.00	$7,700.00	$7,100.00	$6,700.00
F. J. Thomas..	5,900.00	6,500.00	6,700.00	6,600.00	6,700.00	6,650.00	6,700.00
B. B. Browne..	5,900.00	5,300.00	6,400.00	6,900.00	7,500.00	7,800.00	8,000.00

As in our first illustration, let the horizontal line represent the time, and the vertical line the other element. In order to distinguish between the curves representing the three men, various colored inks might be employed, but we shall use a continuous line (——) for Riley, a dotted line (----) for Thomas, and a dash line (— — —) for Browne. In accordance with this scheme, we construct the following:

Selling Chart



It requires very little effort to draw some rather obvious conclusions. For instance, Riley did his best work during 1908 and 1909, and is now on a down grade. Thomas is apparently in a rut, but is a steady man. Browne is the "hustler" of the three.

Exhibits such as the above make it possible for the accountant to place clearly before his client matter which might not be as easy to grasp in any other form. Other applications will be indicated in subsequent chapters.

Summary

There are two ways of understanding what is meant by accounting: to describe the function of the accountant, and to indicate some of the essentials of accounting itself.

Though the accountant must know bookkeeping thoroughly, he is not an expert bookkeeper. He is the auditor, the systematizer, the cost accountant, the business doctor, the consulting accountant. The certified public accountant is a professional man whose standing in the community is as high as that of the doctor or the lawyer.

Some of the technical features of accounting,—the elements which help to differentiate it from expert bookkeeping,—are the scientific classification of accounts, the recognition of a fundamental distinction between capital and revenue, the goal as a Balance Sheet rather than as a Trial Balance, the self-explanatory titles of accounts, the use of controlling acoounts, and the forms employed.

EXERCISES

Group One

1. What kind of service does the accountant render the business community?
2. Define Controlling Accounts, and illustrate by means of Accounts Payable.

3. What is meant by a contingent liability? How may such a liability be extinguished?
4. Criticize the Merchandise Account as ordinarily kept, and suggest a remedy.
5. Classify the following accounts as Personal, Real, or Nominal:

   (*a*) Insurance; (*b*) Mortgage Payable; (*c*) T. Jones, Prop.; (*d*) Return Sales; (*e*) Wages; (*f*) Taxes; (*g*) Patents; (*h*) Investments.

Group Two

1. Construct a chart to show various per cents. of profits on investment for eight years. Use your own figures.
2. Make entries in your books for the following transactions:

   July 31, 1913. Sold to R. Rollins & Bros., 600 yd. Am. Woolen at $1.12½, terms 1%, 30 da.; 4 mo. net.

   Nov. 30, 1913. Received their three months' note with interest at five per cent. in full.

   Dec. 12, 1913. Discounted note at First National Bank. (The note was duly paid at maturity.)

3. L. L. Longley buys from and sells to us. On Nov. 30 his balance in our Sales Ledger is $500.00, while the balance in the Purchase Ledger is $200.00. We receive, accept, and enter his check of $300.00 in full settlement of account. Show entry for check and subsequent adjustment entry, in all books of original entry affected.

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CHAPTER III

THE APPLICATION OF ACCOUNTING TO BOOKKEEPING

ADVANCED bookkeeping is differentiated from the elementary types by the fact that it makes use of various labor-saving and efficiency-obtaining devices; in other words, it is an application of accounting principles to bookkeeping. Many fail to distinguish between advanced bookkeeping and accounting. These differences we are ready to state without amplification, for the subject was discussed at length in the last chapter.

1. The accountant understands the reasons and principles underlying his work; the bookkeeper, as such, needs only to know how to follow models.
2. The accountant installs the system; the bookkeeper records the transactions in accordance with the system so installed.
3. The accountant, knowing the principles of his subject, is ready to modify devices and forms in specific instances so as to obtain greater efficiency; the bookkeeper, as such, is the slave of a particular system.
4. The accountant employs the result of the bookkeeper's work to prepare statements, analyze conditions, suggest improvements, etc.; the bookkeeper's work really ends with the Trial Balance.

The chief labor-saving devices center around the introduction of extra columns in the books of original entry. We shall content ourselves by introducing these special columns to the student, after which, especially if he has worked a set of transactions including the handling of the business papers involved, he should be well prepared to make the most of accountancy.

Expense Column in the Cash Book.—If it is found that expense items occur frequently, the work of posting to this account may be much curtailed. We know how the Sales Book and the Purchase Book provide the means of total postings. To effect a similar saving in the case of Expense account, a new book is not needed—a second column on the credit side of the Cash Book suffices. The following illustration of the payment side of this book will be of help to the student:

Cash Payments

1913		L.F.	Account to Be Debited	Explanation	Expense		General	
Aug.	1	√	Expense	Rent	50	00		
	3	8	Brown Bros.	In full			200	00
	6	5	Shildron & Co.	On Acct.			1,000	00
	6	√	Expense	Salary	42	00		
	8	10	Fur. & Fix.	Office Furniture			125	00
	15	12	Discount	On Smith's note, 8/2			3	87
	18	√	Expense	Salary	84	00		
	20	√	Expense	Sta. $18; Print. $13	31	00		
	22	13	Dis. on Sales	On B. & F.'s Inv., 8/13			10	00
	27	√	Expense	Salary	48	00		
	28	11	Notes Payable	My note favor F.B., 8/13			550	00
	29	√	Expense	Postage	5	00		
	31	5	Shildron & Co.	On Acct.			300	00
		3	Expense, Dr.	Total	260	00	260	00
			Balance[1]				310	22
							2,759	09

[1] In red ink.

Comments:

(*a*) All expense items are extended into the first column, while items affecting all other accounts are extended into the second, headed "General." This device effectively separates expense from other items.

(*b*) Each expense item is checked in the L. F. column. This is done so that individual items should not be posted. The total of the Expense column, $260.00, is then posted to the debit side of the Expense Account, page three of the Ledger, as indicated.

(*c*) The total expense, $260.00, is added to the total of the general column, so as to obtain the total cash credit, or disbursements.

Other Extra Columns.—Banks often charge their depositors for collecting out-of-town checks. Concerns which make daily deposits may thus have to make over twenty entries for such fees each month. We saw that the extra column was reserved for Expense Account because expense items occurred frequently. If collection items were greater in number, then Collection and Exchange—the title of the account—could be the heading of the column. But if it were desirable to have special columns for both, why not add an extra column? No reason at all, so we have Cash Books with three and more columns on each side.

Some concerns discount customers' notes frequently. We have already seen that such transactions necessitate entries on both sides of the Cash Book. An extra column on the receipt side would simplify matters. The following form will illustrate the points just made:

Cash Receipts

Date		L.F.			Notes Rec.		Dis.		General	
1913 Sept.	1	1	T.F.Solms, Prop.	Investment					5,000	00
	3	√	Notes Rec.	Dis. L. & M.'s note, 8/15	1,000	00	8	00	992	00
	6	8	T. Brown & Co.	On Acct.					300	00
	8	√	Notes Rec.	M. & M., 8/8	2,500				2,500	00
	15	√	Notes Rec.	Dis. B.'s note, 9/12	1,200	00	12	00	1,188	00
	19	7	M. Felter	Cash Sale					16	00
	24	√	Notes Rec.	Dis. B.'s note, 9/20	2,000	00	18	00	1,982	00
	30	5	Notes Rec.	Cr., Total	6,700	00				
		8	Discount	Dr., Total			38	00		
									11,978	00

Cash Payments

Date		L.F.			Expense		C. & E.		General	
1913 Sept.	2	√	Expense	Rent	60	00				
	5	4	Fur. & Fix.	Office Furniture					100	00
	7	√	Collection & Ex.				1	00		
	9	√	C. & E.					75		
	10	√	C. & E.				1	50		
	12	6	Notes Pay.	Favor L. S., 9/12					3,000	00
	16	13	Long & Short	In full					1,500	00
	20	√	Expense	Salary	85	00				
	25	√	Expense	Stationery	12	50				
	30	√	C. & E.				2	00		
		3	Expense	Dr., Total	157	50			157	50
		3	Col. & Exch.	Dr., Total			5	25	5	25
			Balance [1]						7,215	25
									11,978	00

[1] In red ink.

Comments:

(*a*) The general column on the credit side is like that of the previous illustration, but the one on the debit side needs a word of explanation. On September 3d we discounted L. & M.'s note. The face of the note was $1,000.00, the discount $18.00, and the net proceeds $992.00. Note that the general column contains the net proceeds, the amount for which Cash Account should be debited. Notes Receivable Account should be credited for $1,000.00 and Discount Account debited for $8.00. A similar analysis for each of the other items on the debit side will establish the correctness of the posting of the totals, as indicated, namely, Notes Receivable Account, credited, $6,700.00; and Discount Account, debited $38.00. The posting of the individual items is simple enough. Thus, the general column shows the actual amount of cash received, for which Cash Account is to be debited. The postings of the totals from this side result as follows:

Notes Receivable

					Sept.	30		C18	6,700.00

Discount

Sept.	30		C18	38.00					

Cash

Sept.	30	Total	C18	11,978.00					

(*b*) The posting of the Expense Account and the Collection and Exchange Account totals to the debit side of the respective accounts is so similar to the procedure in the last section that comment is unnecessary.

(*c*) The general column on the credit side, unlike the one on the debit side, contains only such items as have to be posted as individual debits. In order to show the total expenditure, the totals of the two special columns must be extended into the last one, as shown.

Controlling Accounts.[1]—A special application of extra columns in books of original entry is to the so-called Controlling Accounts. Without attempting to repeat what is meant by Controlling Accounts[1] we shall present a set of books kept upon such a basis, and then draw the necessary conclusions. The transactions are:

May

1. M. L. Roberts began the ribbon and lace business at No. 568 Broadway, investing cash, $10,000.00, and office fixtures, as per schedule, $1,000.00.
2. Paid rent of loft, cash, $200.00.

[1] See Chapter II, Section 8.

3. Bot. of Robt. Sommers, 2/10, n/30, 1,200 yd. #49 ribbon @ 80c, and 3,000 yd. #46 ribbon @ 66 2-3c.
5. Sold Thom & Lane, 2/10, n/30, 200 yd. #9 ribbon @ $1.00, and 1,000 yd. #46 ribbon @ 90c. Discounted my own 60-day note at Columbia Bank at 6%, $5,000.00.
6. Paid salaries as per Payroll Book, cash, $310.00. Bot. postage stamps, $4.00, and paid stationery bill of Tower Co., $35.00. Paid bill of Derby Furniture Co. for desk, filing cabinet, etc., received to-day, $175.00.
8. Sold B. Case, on account, 1,000 yd. #46 ribbon @ 92c.
9. B. Case returned part of yesterday's sale, 100 yd. @ 92c, for which they are to receive credit.
10. Bot. of M. Sellers & Sons, 2/10, n/30, 4,000 yd. #61 ribbon @ $1.10, 1,500 yd. #8 lace @ $1.50, and 3,000 yd. #46 ribbon @ 60c. Recd. from B. case their check on account, $500.00.
11. Sold L. Long, for cash, 100 yd. #9 ribbon @ $1.25 and 50 yd. #3 lace @ $2.00. Paid R. Sommers cash for invoice of the 3d inst., less 2%.
13. Paid salaries as per P. R. Book, cash, $310.00.
15. Sold Thom & Lane, 2/10, n/30, 3,000 yd. #61 ribbon @ $1.50 and 1,000 yd. #9 ribbon @ $1.00. Recd. of Thom & Lane, in full of invoice of 5th inst., their check, $1,078.00. Recd. of B. Case, on account, their 30-day note, $300.00, dated May 14th.
17. Discounted Case's note of the 14th, proceeds $298.65.
18. Bot. of Robert Sommers, on account, 5,000 yd. #23 ribbon @ 20c. Sold Mr. Simpson, for cash, 10 yds. #46 ribbon @ $1.25.
19. Paid M. Sellers & Sons in full for invoice of 5/10, cash.
20. Paid salaries, as per P. R. Book, $310.00. We returned to Robt. Sommers and are to receive credit for 500 yd. #23 ribbon @ 20c.
21. Sold L. Long, on account, 2,000 yd. #23 ribbon @ 40c and 1,000 yd. #46 ribbon @ 92c. Recd. of Long, cash on account, $1,000.00

22. Paid R. Sommers, cash on account, $300.00.
22. Recd. of Thom & Lane, in full of invoice 5/15, cash, $5,390.00.
26. Sold Thom & Lane, on account, 3,000 yd. #23 ribbon @ 38c and 1,000 yd. #61 ribbon @ $1.50.
27. Paid salaries, as per P. R. Book, $350.00. Bot. of Freeport Mills, on account, 10,000 yd. #23 ribbon @ 18c and 2,400 yd. #87 ribbon @ $1.25.
28. Recd. of Thom & Lane their 30-day note on account, $2,000.00.
30. Gave Robt. Sommers my 30-day note on account, $250.00.
31. Discounted T. & L.'s note of 5/28, proceeds $1,986.50. Paid telephone bill, cash, $12.00. Recd. of L. Long his 30-day note, on account, $500.00. Gave Freeport Mills my one-month note on account, $2,000.00.

The Purchase Book, Sales Book, Cash Book, and Journal, resulting from the foregoing transactions, follow:

The Purchase Book

PURCHASES, MAY 3, 1913

L. F.								
1	Robert Sommers	2/10, n/30						
		1,200 yd. #9 Ribbon......		80	960	00		
		3,000 yd. #46 Ribbon.....		66⅔	2,000	00	2,960	00
		10						
2	M. Sellers & Sons	2/10, n/30						
		4,000 yd. #61 Ribbon.....	1	10	4,400	00		
		1,500 yd. #8 Lace........	1	50	2,250	00		
		3,000 yd. #46 Ribbon.....		60	1,800	00	8,450	00
		18						
1	Robert Sommers	on acct.						
		5,000 yd. #23 Ribbon.....		20			1,000	00
		27						
3	Freeport Mills	on acct.						
		10,000 yd. #23 Ribbon....		18	1,800	00		
		2,400 yd. #87 Ribbon.....	1	25	3,000	00	4,800	00
		31						
3 7	Purchases, Dr. Accts. Pay., Cr.	Total Purchases......					17,210	00

Comments:

(*a*) Each person from whom goods are bought is credited for the amount of each invoice. The pages (Ledger folios) to which posting was made are indicated. The

Ledger Accounts are in a special book, known as the Creditor's or Purchase Ledger. Such a Ledger is an example of what is known as a subsidiary Ledger.

(*b*) The total of the Purchase Book is posted to the General Ledger. Note that Purchases Account is debited (page 3 of the General Ledger), and Accounts Payable Account is credited (page 7 of the same Ledger).

(*c*) Accounts Payable, grouping the total amount due to creditors, is an example of a Summary or Controlling Account. Why it is called a "Controlling" Account will be made clear later.

(*d*) The Ledgers and the Trial Balance will be submitted after the other books of original entry have been shown.

The Sales Book

SALES, MAY 5, 1913

L.F.				Extensions	Cash	On Account
1	Thom & Lane	2/10, n/30				
		200 yd.	#9 Ribbon..$1.00	200 00		
		1,000 yd.	#46 Ribbon.. .90	900 00		1,100 00
		8				
2	B. Case	on acct.				
		1,000 yd.	#46 Ribbon. .92	920 00		920 00
		11				
√	L. Long	Cash				
		100 yd.	#9 Ribbon...1.25	125 00		
		50 yd.	#8 Lace 2.00	100 00	225 00	
		15				
1	Thom & Lane	2/10, n/30				
		3,000 yd.	#61 Ribbon..1.50	4,500 00		
		1,000 yd.	#9 Ribbon...1.00	1,000 00		5,500 00
		18				
√	Simpson	Cash				
		10 yd.	#46 Ribbon...1.25	12 50	12 50	
		21				
3	L. Long	on acct.				
		2,000 yd.	#23 Ribbon. .40	800 00		
		1,000 yd.	#46 Ribbon. .92	920 00		1,720 00
		26				
2	Thom & Lane	on acct.				
		3,000 yd.	#23 Ribbon. .38	1,140 00		
		1,000 yd.	#61 Ribbon.1.50	1,500 00		2,640 00
		31				
4	Sales, Cr., Total Cash Sales................				237 50	
6/4	Accts. Rec., Dr., and Sales Cr., Total Time Sales			....	....	11,880 00

Comments:

(*a*) Note unit price and cash sales columns.

(*b*) All customers, except those checked, are charged with the amount of their individual purchases in a special Ledger, the Sales Ledger.

(*c*) The total of cash sales is credited to Sales Account in the General Ledger. The corresponding debit is found on the debit (receipt) side of the Cash Book.

(*d*) For the time sales we have these debits and credits in the General Ledger: Accounts Receivable, a Controlling Account, debited, and Sales Account, credited.

(*e*) The objection to entering cash sales as indicated is illustrated by the L. Long entry on the 11th. As this item is checked it will not appear in L. Long's account. Later, when we sell to Mr. Long on account, an account is opened with him. At the end of the year, then, Long's account will not show the full volume of our dealings with him. Some accountants strongly advocate that cash sales, even those like to Simpson, be regarded as time sales, so that an account be kept with all customers.

(*f*) In order to avoid allotting a full page to customers who may never deal with us again, a new account may be opened in the Sales Ledger, called Sundry Debtors, Sundry Customers, or Sundry Accounts Receivable. When a cash sale is made, this account is charged for the amount of the sale, and it is credited with the receipt of the payment. Charge sales to people with whom we do not deal regularly may be shown in this same account. In both cases, the name of the customer is shown in the explanation space on the debit side.

To avoid confusion, a few lines are frequently left between items. In such cases, each item may be regarded as a Ledger Account with the title omitted. The spaces are left in order to provide room for subsequent transactions with the same concern.

The Cash Book

Cash Receipts

Date 1913	L.F.			Accts. Rec.	Dis. on Sales	Net	General
May 1	√	M. L. Roberts	Investment				10,000.00
5	9	Notes Payable	Dis. my 60-day note				5,000.00
10	2	B. Case	On Acct.	500.00		500.00	
11	√	L. Long	Cash Sale				225.00
15	1	Thom & Lane	Invoice 5/5	1,100.00	22.00	1,078.00	
17	8	Notes Rec.[1]	Dis. Case's note 5/14				300.00
18	√	Simpson	Cash Sale				12.50
21	3	L. Long	On Acct.	1,000.00		1,000.00	
25	2	Thom & Lane	Invoice, 5/15	5,500.00	110.00	5,390.00	
31	8	Notes Rec.[1]	T. & L.'s note, 5/28				2,000.00
	6	Accts. Rec., Cr.		8,100.00			
	11	Discount on Sales, Dr.			132.00		
	√	Net				7,968.00	7,968.00
	2	Cash, Dr., Total Receipts					25,505.50
							25,505.50

[1] Notes Receivable Discounted is favored by accountants. (See page 30.)

The Cash Book

CASH PAYMENTS

Date 1913	L.F.			Accts. Pay.	Dis. on Pur.	Net	General
May 2	5	Expense	Rent				200 00
5	13	Discount	My note to-day				50 00
6	5	Expense	Salaries				310 00
	5	Expense	Postage, etc.				39 00
	10	Fur. & Fix.	Office chairs, etc.				175 00
11	1	Robt. Sommers	Invoice, 5/3	2,960 00	59 20	2,900 80	
13	5	Expense	Salaries				310 00
17	13	Discount	Case's note				1 35
19	2	M. Sellers & Sons	Invoice, 5/10	8,450 00	169 00	8,281 00	
20	5	Expense	Salaries				310 00
22	1	R. Sommers	On Acct.	300 00		300 00	
27	5	Expense	Salaries				350 00
31	13	Discount	T. & L.'s note				13 50
	5	Expense	Telephone				12 00
	7	Accts. Pay., Dr.		11,710 00			
	12	Discount on Purchases, Cr.			228 20		
	√	Net				11,481 80	11,481 80
	2	Cash, Cr., total disbursements					13,252 65
		Balance					12,252 85
							25,505 50

Comments:

(*a*) The first three columns on each side concern themselves with the Controlling Accounts. On May 10th, when we received $500.00 from B. Case on account, we entered it in the first and third columns, because the net amount was equal to the reduction of the debt (part of Accounts Receivable). But on the 15th, when we received $1,078.00 from Thom & Lane, this amount canceled an indebtedness of $1,100.00. The corresponding items on the payment side are similarly explained.

(*b*) We received a total of $7,968.00 to cancel debts aggregating $8,100.00. Had this been the payment of an individual it would have resulted in:

Cash	$7,968.00	
Dis. on Sales	132.00	
To Customer		$8,100.00

The result in our case is equivalent to:

Cash	$7,968.00	
Dis. on Sales	132.00	
To Accts. Rec.		$8,100.00

(*c*) Proceed similarly for the payment side.

(*d*) Each individual customer is, of course, credited for the amount canceled; each creditor, too, is charged for similar cancellations.

(*e*) Note how total cash receipts, total cash payments, and cash balance are established.

(*f*) All items appearing in the general columns, except those checked, are to be posted individually to the General Ledger.

(*g*) The student is now in a position to suggest what other extra columns might have been used advantageously. Theoretically, as many columns as are desired may be employed; practically, a limit is soon reached.

The Journal

May 1, 1913

Notes Rec.	Accts. Pay.	General	L.F.		L.F.	General	Accts. Rec.	Notes Pay.
				M. L. Roberts began the ribbon and lace business, investing as follows:				
		10,000 00	√	Cash				
		1,000 00	10	Fur. and Fix.				
				To M. L. Roberts, Investment	1	11,000 00		
				9				
		92 00	4	Sales				
				To B. Case	2		92 00	
				Ret. 100 yds. #46 Ribbon 92c				
				15				
300 00			√	Notes Rec.				
				To B. Case	2		300 00	
				Their 30-day note on acct., dated 5/14				
				20				
	100 00		1	Robt. Sommers				
				To Purchases	3	100 00		
				Ret. 500 yds. #23 Ribbon 20c				

The Journal—*(continued)*

				28				
2,000 00			√	Notes Rec.				
				To Thom & Lane	1		2,000 00	
				Their 30-day note on acct.				
				30				
	250 00		1	Robt. Sommers				
				To Notes Pay.	√			250 00
				My 30-day note, on acct.				
				31				
500 00			√	Notes Rec.				
				To L. Long	3		500 00	
				His 30-day note on acct.				
				31				
	2,000 00		3	Freeport Mills				
				To Notes Pay.	√			2,000 00
				My 1-mo. note, on acct.				
				31				
2,800 00		2,800 00	8	Notes Rec., Dr., Total				
	2,350 00	2,350 00	7	Accts. Pay., Dr., Total				
				Accts. Rec., Cr., Total	6	2,892 00	2,892 00	
				Notes Pay., Cr., Total	9	2,250 00		2,250 00
		16,242 00				16,242 00		

Comments:

(*a*) The items checked are posted in totals at the end of each month.

(*b*) Note the arrangement and use of the two L. F. columns.

(*c*) Individual customers and creditors are credited and debited respectively, while to the corresponding Controlling Accounts the totals are carried.

(*d*) The closing is for the purpose of showing that the debits posted equal the credits posted.

As a result of posting we obtain the following accounts:

I. In the General Ledger

M. L. Roberts, Investment

							1913						
							May	1		J	1	11,000	00

Cash

1913							1913						
May	31		C	2	25,505	50	May	31		C	3	13,252	65

Purchases

1913					1913				
May	31		P 1	17,210 00	May	20		J 1	100 00

Sales

1913					1913				
May	9		J 1	92 00	May	31		S 1	237 50
								1	11,880 00

Expense

1913									
May	2		C 3	200 00					
	16		3	310 00					
	6		3	39 00					
	13		3	310 00					
	20		3	310 00					
	27		3	350 00					
	31		3	12 00					

Accounts Receivable

1913					1913				
May	31		S 1	11,880 00	May	31		C 2	8,100 00
								J 1	2,892 00

Accounts Payable

1913					1913				
May	31		C 3	11,710 00	May	31		P 1	17,210 00
			J 1	2,350 00					

Notes Receivable

1913					1913				
May	31		J 1	2,800 00	May	17		C 2	300 00
						31		2	2,000 00

Notes Payable

					1913				
					May	5		C 2	5,000 00
						31		J 1	2,250 00

Furniture and Fixtures

1913									
May	1		J 1	1,000 00					
	6		C 3	175 00					

DISCOUNT ON SALES

1913											
May	31		C	2	132	00					

DISCOUNT ON PURCHASES

						1913					
						May	31	C	3	228	20

DISCOUNT

1913											
May	5		C	3	50	00					
	17			3	1	35					
	31			3	13	50					

Comment.—Because totals are posted monthly, we sometimes come across Ledger accounts which do not seem to be correct. Notes Receivable Account is an example. The note of the 17th appears to have been disposed of before it was received.

II. In the Sales Ledger

THOM & LANE

1913					1913				
May	5	S	1	1,100 00	May	15	C	2	1,100 00
	15		1	5,500 00		25		2	5,500 00
	26		1	2,640 00		28	J	1	2,000 00

B. CASE

1913					1913				
May	8	S	1	920 00	May	9	J	1	92 00
						10	C	2	500 00
						15	J	1	300 00

L. LONG

1913					1913				
May	21	S	1	1,720 00	May	21	C	2	1,000 00
						31	J	1	500 00

Comment.—The Sales Ledger often contains three money columns instead of two, the middle one being used for balances. A typical ruling follows:

Date			L.F.	Dr.	Balance	Cr.	L.F.		Date

III. In the Purchase Ledger

Robert Sommers

1913					1913				
May	11		C 3	2,960 00	May	3		P 1	2,960 00
	20		J 1	100 00		18		1	1,000 00
	22		C 3	300 00					
	30		J 1	250 00					

M. Sellers & Sons

1913					1913				
May	19		C 3	8,450 00	May	10		P 2	8,450 00

Freeport Mills

1913					1913				
May	31		J 1	2,000 00	May	27		P 2	4,800 00

Comment.—The Purchase Ledger is often ruled as indicated above for the Sales Ledger.

The Trial Balance of the General Ledger follows:

Trial Balance of M. L. Roberts

May 31, 1913

1	M. L. Roberts, Investment			11,000	00
2	Cash	12,252	85		
3	Purchases	17,110	00		
4	Sales			12,025	50
5	Expense	1,531	00		
6	Accounts Receivable	888	00		
7	Accounts Payable			3,150	00
8	Notes Receivable	500	00		
9	Notes Payable			7,250	00
10	Furniture and Fixtures	1,175	00		
11	Discount on Sales	132	00		
12	Discount on Purchases			228	20
13	Discount	64	85		
		33,653	70	33,653	70

The foregoing Trial Balance shows that the balance of Accounts Receivable is $888.00. If this account is a summary of the Sales Ledger—if it really *controls* the special Ledger—then the sum of all the balances of the Sales Ledger Accounts must equal $888.00:

Schedule of Customers' Balances in Sales Ledger

May 31, 1913

1	Thom & Lane	640	00
2	B. Case	28	00
3	L. Long	220	00
	Total	888	00

Similarly, Accounts Payable Account of the General Ledger controls the Purchase Ledger:

Schedule of Creditors' Balances in Purchase Ledger

MAY 31, 1913

	1	Robert Sommers	350	00
	2	Freeport Mills	2,800	00
		Total	3,150	00

If the student has carefully followed the steps from the recording in the books of original entry to the posting in the three Ledgers and the establishment of the Trial Balance and schedules, he has learned how Controlling Accounts are employed. If he now reads Section 8, of Chapter II, Controlling Accounts, his understanding of the subject should enable him to keep a set of books as complicated as those shown.

Summary

The object of this chapter was to make clear what accounting has done for bookkeeping. The reader observed that, by the introduction of special books, by the addition of extra columns in books of original entry, and by the use of Controlling Accounts, additional information was made available with less work. At the same time, the proofs so essential to bookkeeping information were strengthened. Those who previously were unfamiliar with the work illustrated in this chapter should carefully trace each transaction through the various books of original entry and from thence to the books of final entry, so as clearly to see and definitely to learn just how to handle similar items.

EXERCISES

Group One

1. Mention the names of three extra columns in the Cash Book. Tell regarding one of them all of the advantages connected with its use.

2. Do the same for the Journal.
3. What are Controlling Accounts? Describe them, pointing out their advantages.
4. Show that special columns are essential for the use of Controlling Accounts.
5. For what items do we employ the Journal in advanced bookkeeping? Why is this so?

Group Two

Enter the following transactions:

May, 1913.

1. L. B. Collins began the flour and grain business by investing cash $8,500.00, office furniture $300.00, and merchandise as follows: 1,000 bu. wheat @ $1.00; 850 bbl. potatoes at $2.00; total investment, $11,500.00.

1. Paid in cash: Rent, $75.00; printing and stationery, $18.50; office fixtures, $125.00.

2. Bot. of L. C. Smith, 2/10, n/30, 2,000 bu. corn @ 60c, $1,200.00.

2. Bot. of R. Rogers, 2/10, n/30, 200 bbl. flour @ $7.80, $1,560.00.

3. Bot. of R. Brown, on account, 2,000 bu. wheat @ $1.00, $2,000.00.

4. Sold R. Thom & Bro., on account, 1,000 bu. corn @ 80c, $800.00.

4. Sold M. Mullin & Son, on their 15-day note, 150 bbl. flour @ $10.00, $1,500.00.

5. Returned to R. Rogers 10 bbl. flour @ $7.80, on account of poor quality. Received credit for $78.00.

6. Discounted my own two-months note at bank. Face $5,000.00, discount $50.00, net proceeds $4,950.00.

6. Paid in cash: Clerk hire, $40.00; tip to janitor, $5.00.

6. Drew for private use, cash, $100.00.

6. Sold Brown & Robbins, on their 10-day note, 1,000 bu. wheat @ $1.25, $1,250.00.

6. Donated to Salvation Army, 1 bbl. flour, $8.00; to Sea Side Home, cash, $5.00. (Charge to Expense Account; credit Sales Account and Cash Account, respectively.)
8. Sold Cooper & Co., 2/10, n/30, 600 bbl. potatoes @ $2.25, $1,350.00.
9. Sold Thom & Bro., 2/10, n/30, 1,000 bu. wheat @ $1.25, $1,250.00.
10. Paid L. C. Smith, cash, in full of account of inv. of 5/2 less 2% $1,176.00.
11. Bot. of L. C. Smith, 2/10, n/30, 1,000 bu. potatoes @ $1.50, $1,500.00.
12. Paid R. Rogers, on account, cash $1,000.00, receiving credit for $1,020.00. (Note.—This is a part payment of the May 2 invoice; 2% of $1,000.00 is $20.00, the credit to Discount on Purchases Account. Mathematically and *theoretically*, we *should* have received credit for $1,020.41, $1,000 divided by 98%.)
13. Gave R. Rogers my 30-day note for balance of account, $462.00.
13. Paid clerk hire, cash, $50.00.
13. Sent goods home for private use, 2 bbl. flour @ $9.00, $18.00.
15. Gave R. Brown my 15-day note, on account, $1,000.00.
16. Discounted Mullin's note of 5/4, proceeds $1,499.25.
17. Cooper & Co. paid their invoice of 5/8, less 2% cash, $1,323.00.
19. Thom & Bro. gave us their 15-day note for invoice of 5/4, less 1%, $792.00. (Charge Notes Rec. Account $792.00, Disc. on Sales Account $8.00; credit R. Thom & Bro. $800.00.)
20. Bot. store property for $6,000.00, cash. (Charge Real Estate Account.)
22. Paid plumbing bill, cash, $25.00.
26. Paid R. Brown in full of account, cash, $1,000.00.
30. Paid my note of 5/15, favor of R. Brown, cash, $1,000.00.
31. Paid in cash: Clerk hire, $50.00; gas bill, $7.50; telephone bill, $12.00.

1. Enter in books of original entry (Sales Book, Purchase Book, special column Cash Book, special column Journal) the review set furnished you herewith. The columns in the Cash Book, debit side, are Accounts Receivable, Discount on Sales, Net, General; on the credit side, Accounts Payable, Discount on Purchases, Net, General.

   The Journal contains six columns: Notes Receivable, Accounts Payable, General, on the debit side; on the credit side, General, Accounts Receivable, Notes Payable. The Sales Book contains three money columns: the first for extensions; the second for cash sales; and the third for ordinary sales.
2. Post to the three Ledgers (General, Customers', and Creditors'), keeping them apart from each other. If loose Ledger sheets are employed, make sure that no sheet contains accounts belonging to another Ledger. Allow five lines each, in the General Ledger, for Accts. Rec. and Accts. Pay. No Personal Account, except the proprietor's, should be in the General Ledger.
3. Take a Trial Balance of the General Ledger. Prepare schedules of the Sales Ledger and of the Purchase Ledger.
4. If you wish to do so, prepare the statements and close the books.

CHAPTER IV

SINGLE ENTRY VERSUS DOUBLE ENTRY

THE accountant's chief interest in Single Entry Bookkeeping is connected with the fact that the practitioner is frequently called upon to change such a system to Double Entry. In order to do so intelligently it is absolutely necessary that Single Entry be understood thoroughly. Moreover, the relative advantage of Double Entry must be appreciated, so that the accountant shall be able to present clearly, forcibly, and successfully the argument in favor of the more scientific system. The requisites thus indicated serve to suggest the aim of this chapter:

1. To present Single Entry Bookkeeping.
2. To show how to change from this system to that of Double Entry.
3. A comparison between the two systems.

SINGLE ENTRY

In the most elementary form of Single Entry the Journal and the Ledger are the only two books employed. There may be a Blotter, or Day-book, too, but it is not essential to the system. The Journal entries for an investment, a payment of rent, a purchase on account, a sale on account, a settlement of the purchase by our note, and the payment of this note, are as follows:

APRIL 1, 1913

	L. M. Miller, Prop. Cr.			2,250 00
	Began business by investing:			
	Cash	1,000 00		
	Merchandise	1,250 00		
	3			
	Dakota Wheat Co., Cr.			1,550 00
	Bought on account,			
	1000 bu. Wheat @ 1.10	1,100 00		
	50 bbl. Flour @ 9.00	450 00		
	4			
	New York Trading Co., Dr.			800 00
	Sold on account,			
	500 bu. Wheat @ 1.20	600 00		
	20 bbl. Flour @10.00	200 00		
	6			
	Dakota Wheat Co., Dr.			1,550 00
	Gave them our 15-day note in full of account.			

Observations.—As a result of the investment, the Proprietor's Account is credited, but there is *no* debit entry. For the rent *no* entry at all is shown. The purchase resulted in a credit to Dakota Wheat Co., while the sale affected the debit side of N. Y. Trading Co.'s account. Dakota Wheat Co. was charged when the note was issued, but *no* entry was made at the time the note was paid. Further observation discloses that it is customary to employ the last money column for posting figures, so that it is necessary to employ the abbreviations "Dr." and "Cr." to indicate whether a given account should be debited or credited.

Conclusion.—Single Entry Bookkeeping keeps Personal Accounts only. If a transaction does not involve a charge or a credit to a Personal Account, no entry is made for the transaction. Thus, the payment of rent, resulting in:

Expense	$90.00	
To Cash		$90.00

does not appear in the Journal because no Personal Account is involved. Similarly, the redemption of our note, which, in Double Entry, would appear as:

Notes Payable	$1,550.00	
To Cash		$1,550.00

is not journalized for the same reason. The rule for debiting and crediting in Single Entry, simply expressed, is: "Journalize according to the rules of Double Entry; reject all items which do not affect Personal Accounts."

Very few concerns, if any at all, would find a simple system such as the one just outlined a satisfactory one. In conjunction with the Journal described, a Cash Book is also employed. This book has a single function to perform, namely, to record the receipts and disbursements of money, and thus to show the cash balance. The payment of the note to the Dakota Wheat Co. appears among the payments of cash. If we paid a creditor on account, the payment would be shown in the Cash Book. It would also appear in the Journal, as the latter is often the sole posting medium. Hence, Single Entry, in this particular instance, requires more work than Double Entry, a point to which reference will be made later.

In actual practice, even Sales Books and Purchase Books are employed. The Cash Book is often changed, so that postings may be made directly from it to the Personal Accounts, instead of by way of the Journal.[1]

---

[1] Just as in Double Entry, one page is reserved for receipts and the opposite page for disbursements. On the debit side the first column contains the amount to be posted, while the second column contains the items affecting *im*personal accounts. A similar arrangement obtains on the credit side. The sum of the two credit columns, deducted from the total of the two debit columns, establishes the balance.

Single Entry, in the more advanced and practical form, is better styled *incomplete* Double Entry.

Proof of Posting.—In Double Entry, before preparing Statements of Assets and Liabilities or of Profits and Losses, the accuracy of the postings is tested by means of a Trial Balance. The statement is often made that no similar test exists by which to test postings in Single Entry.

That the statement just quoted is not strictly true is about to be shown. First, let the Journal be so modified that both money columns are employed, as in Double Entry. Debit items then will appear in the first column, credit items in the second. If, now, a summary be taken of the Ledger Accounts showing the total of debits and of credits, even of those accounts which are "closed," a proof is available. This *Proof of Posting,*—a better name than Trial Balance,—where a Cash Book and a Journal are the only books of original entry employed, both as posting mediums, is obtained as follows:

(*a*) For the total of the debit side of all Ledger accounts:

The debit column of the Journal plus the posting column on the payment side of the Cash Book.

(*b*) For the total of the credit side of all Ledger accounts:

The credit column of the Journal plus the posting column on the receipt side of the Cash Book.

We herewith present the summary of all Ledger accounts for April, and also the Proof of Posting, as both would appear in actual practice. Observe very carefully that $16,450.00, the total of all the debits posted to all the Ledger accounts, corresponds exactly to the debits derived from original entry sources. Note a similar correspondence between the Ledger credits and the original entry credits.

Summary of All Ledger Accounts

APRIL 30, 1913

L.F.					
1	T. L. Smith, Prop.	200	00	3,000	00
2	Amos Lang	1,500	00	300	00
4	T. Jones & Bros.	3,500	00	2,000	00
8	N. Y. Trading Co.	4,500	00	4,100	00
12	Wheat Export Co.	2,000	00	1,600	00
13	B. Billings	800	00	1,800	00
16	R. T. Rollins	1,250	00	1,250	00
19	I. F. Failer	360	00		
24	L. L. Lambert	340	00		
35	J. J. Kauer	2,000	00	1,000	00
		16,450	00	15,050	00

Proof of Posting

		Debits		Credits	
	Journal—page 1	4,150	00	6,000	00
	2	3,550	00	1,380	00
	3	5,000	00	2,020	00
	4	1,700	00	1,440	00
	Cash Book, posting column, debit side			4,210	00
	credit "	2,050	00		
		16,450	00	15,050	00

Statements of Condition and of Progress.—Inasmuch as a Single Entry Ledger contains accounts only with debtors, creditors, and the proprietor, it is evident that from it, and from the Cash Book, we cannot obtain sufficient information to make a Statement of Assets and Liabilities. Hence, it is necessary to obtain information from sources other than the books. Notes receivable and notes payable may be found listed in a Bill Book, in some memorandum book, or perhaps in some other way. The value of furniture and fixtures, and of other similar assets, may be ascertained by appraisal. The form of the Statement of Assets and Liabilities need not differ from that with which we are already familiar, so none is presented.

But, as the Ledger contains no accounts from which to establish profits or losses, another method has been devised. This way, though we may not be aware of it, is already known to us. It consists of a comparison between the value of the business at present and the net investment. More simply, it is the difference between the *present* present worth and the *former* present worth. A single illustration will suffice:

Statement of Profit and Loss

for the period ending December 31, 1912

Present Worth of business, as per Statement of Assets and Liabilities........................	$5,850.00
Net Investment of proprietor, as per Ledger......	5,000.00
Net Profit for period under review...........	$850.00

We have now seen that it is possible to determine the profit or loss and the value of the business even by Single Entry. What, then, so far as final Statements are concerned, is the superiority of Double Entry? It will be noticed that, though the amount of the net profits has been found, there is no way of proving the correctness of our results. Moreover, the *sources* of our profits or losses cannot be determined. These are but a few of the disadvantages. Others have been indicated previously, and these, as well as those to be studied in more advanced work, will be found recapitulated at the end of the present chapter.

Changing to Double Entry

Were the student to open a concern's Ledger, say, at page 151, and find thereon the account of a customer or a creditor, he could not tell whether the books were kept by Single Entry or by Double Entry. But by turning the pages he could decide. How? By noticing the presence or absence of Impersonal Accounts,—Expense, Purchases, Notes Receivable, etc.

Now, if it is required to change a Single Entry set to a Double Entry set, the principle involved is remarkably simple. Add to the Ledger the Impersonal Accounts. The application of this step is somewhat difficult, so we shall discuss and illustrate it at some length.

You learn that E. E. Ellison, the proprietor, invested $3,500.00 at the beginning of the year, and that his investment has remained unchanged. His Ledger, kept by Single Entry, contains the following balances:

(*a*)	Customers:	
	F. Hopkins	$368.00
	R. Billings	1,500.00
	Smith & Co.	1,312.00
	Rollins & Bro.	375.00
(*b*)	Creditors:	
	Bailey & Co.	$1,000.00
	H. Harris	750.00
(*c*)	E. E. Ellison, Prop.	$3,500.00

Assume that you have been asked to change Mr. Ellison's books to the Double Entry system, how should you proceed?

In the first place, you must find how much Mr. Ellison's present capital is, how much he has made or lost, and whether you are to use his old books or open a new set.

Mr. Ellison decides that the old books are to be continued, and he gives you the following information to assist you in determining his present capital:

Cash in bank, as per Cash Book, $780.00; value of merchandise on hand, $2,200.00; two notes in his favor are in drawer, one from Longley Bros. for

$1,000.00, another from F. Hopkins, $500.00, both due next week; he has outstanding a note in favor of H. Harris, due to-morrow, $2,000.00; the office furniture is worth $450.00.

The first step consists in the preparation of a Statement of Assets and Liabilities:

Statement of Assets and Liabilities of E. E. Ellison

DECEMBER 31, 1913

Assets			Liabilities		
Cash	780	00	Notes Payable, favor H. Harris	2,000	00
Notes Receivable, as listed	1,500	00	Accts. Payable, as per schedule	1,750	00
Accts. Receivable, as per schedule	3,555	00	Total Liabilities	3,750	00
Merchandise, as per inventory	2,200	00	*Capital:*		
Office Furniture	450	00	E. E. Ellison's Capital	4,735	00
	8,485	00		8,485	00

The next step ascertains the profit for the period under review:

Statement of E. E. Ellison's Profit

FOR THE PERIOD ENDING DECEMBER 31, 1913

Capital of E. E. Ellison, as per Statement of Assets and Liabilities	$4,735.00
E. E. Ellison's net investment, as per Ledger	3,500.00
E. E. Ellison's net profit	$1,235.00

It is now necessary to credit Mr. Ellison's account with $1,235.00 so as to change his balance to the amount of his present capital. *This step should be taken regardless of whether the books are to be changed to Double Entry or not.* The Journal entry to accomplish this end is:

E. E. Ellison, Prop.	Cr.	$1,235.00

To enter the net profit for the current year, as per Statement.

After posting the above entry, only a few additional accounts must be entered in the Ledger so as to have it in balance. It will not do simply to enter these items; instead, we must make a Journal entry in order to accomplish this result.

This Journal entry, together with the usual explanations which accompany such entries, follows:

L.F.				
	DATE I have this day decided to change my books from Single Entry to Double Entry. The following balances exhibit the condition of my business:			
4	Cash	Balance on hand	780 00	
9	NotesReceivable	As per list	1,500 00	
√	F. Hopkins	Due us	368 00	
√	R. Billings	Due us	1,500 00	
√	Smith & Co.	Due us	1,312 00	
√	Rollins & Bro.	Due us	375 00	
7	Merchandise	As per inventory	2,200 00	
8	Office Furniture	As per inventory	450 00	
5	To Notes Payable	As per list		2,000 00
√	Bailey & Co.	Due them		1,000 00
√	H. Harris	Due him		750 00
√	E. E. Ellison, Prop.	Net capital		4,735 00
	All of the above balances have been posted to the pages indicated, except the items checked. These items are already in the Ledger.			

The reason the checked (√) items have not been posted is that the old Ledger, which is to be continued, already contains them. The change from a Single Entry Ledger requires the addition of the accounts not included in the former. It would not do to post the Personal Accounts, as, by so doing, they would appear twice. Cash is posted, as it is desired to have all the accounts shown in the Ledger, though many bookkeepers omit this account, preferring to consider the Cash Book as the corresponding Ledger Account. After the posting referred to has been completed, a Trial Balance may be taken, which will prove that the books are in balance, and can be continued as Double Entry books.

Often, in a case such as the one discussed, Mr. Ellison might ask that the old books be discontinued, and a new set opened. It would then be required, in addition to the work we have already done, that the old books be *closed* and a new set opened.

The first task before us now is to close the old books, which have been changed to the Double Entry system.[1] A very simple principle is applied. In order to close an account which has a debit side—an excess on the debit side—it must be credited. Hence, the following entry in the old Journal, which, when posted, will close all the Ledger Accounts:

DATE

I have this day decided to close my old books, preparatory to opening a new set. The following entry is to close all the existing accounts in the old Ledger:

Notes Payable	$2,000.00	
Bailey & Co	1,000.00	
H. Harris	750.00	
E. E. Ellison, Prop	4,735.00	
To Cash		$780.00
Notes Receivable		1,500.00
F. Hopkins		368.00
R. Billings		1,500.00
Smith & Co		1,312.00
Rollins & Bro		375.00
Merchandise		2,200.00
Office Furniture		450.00

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[1] In practice it would not be necessary to change the old books to Double Entry, but simply to transfer the balances from the old Ledger to the new one, with an appropriate explanation in the old Journal.

Another method of closing the old books is not to change them first to the Double Entry system, but to proceed as follows:

(*a*) Make the last Single Entry entry, to change the proprietor's net investment to his present capital.

(*b*) Close the accounts in the old Ledger by means of a Journal entry, debiting all creditors and the proprietor, and crediting all customers.

Regardless of which one of the two methods of closing the old books is employed, the method of opening the new ones is the same. It consists of an entry in the new Journal, prefaced by a suitable statement that the new set is to be employed. This entry is arranged exactly like the one shown for changing the old books to Double Entry (page 75), but all the items are posted. The check marks and the concluding explanation are, therefore, not employed, while, for the introductory Statement (page 75), the preface referred to in this paragraph is substituted.

Changing to a More Modern Set.—When a concern has its books changed from Single Entry to Double Entry, it not infrequently happens that the accountant is instructed to introduce such labor-saving devices as Controlling Accounts. Let us assume that we have been requested to perform this service for Mr. Ellison. The problem of closing the old books is changed in no way, so the opening of the new books is all that concerns us.

To open a new set, under the conditions imposed, means to provide for the use of a General Ledger, for a special Ledger for customers, and another for creditors, and for special columns in the Journal and in the Cash Book. As we have previously discussed the form of such special or extra columns,[1] it will not be necessary to describe them

[1] See Controlling Accounts, page 31, and Chapter III.

here. The Journal entry to open the new books in question may be:

Accts. Pay.	General	L. F.	Date	L. F.	General	Accts. Rec.
			I have this day opened a new set of books according to the principles of Double Entry bookkeeping. The following entry is for the purpose of opening all the necessary accounts:			
	780.00		Cash			
	1,500.00		Notes Receivable			
	3,555.00		Accounts Receivable:			
			F. Hopkins $368.00			
			R. Billings 1,500.00			
			Smith & Co 1,312.00			
			Rollins & Bro. 375.00			
	2,200.00		Merchandise			
	450.00		Office Furniture			
			To Notes Payable		2,000.00	
			Accounts Payable:		1,750.00	
			Bailey & Co., $1,000.00			
			H. Harris 750.00			
			E. E. Ellison, Prop.		4,735.00	

It is to be noted that the items in the general column are to be posted to the indicated accounts in the General Ledger. Accounts Receivable and Accounts Payable, in the Main Ledger, take the place of the accounts of the individual customers and individual creditors of the old Ledger, respectively. But as it is still necessary to keep an account with each customer and with each creditor, the student is asked to observe what provision has been made for them. The customers' accounts are to be posted to the debit side of their accounts in the customers' Ledger, while the creditors' accounts are to be carried to the credit of their own accounts in the creditors' Ledger.

Comparison Between Single and Double Entry

The reader is now prepared to note the differences between Single Entry and Double Entry Bookkeeping. Regarding the form, he knows that Single Entry books contemplate the keeping of Personal Accounts alone, while the Double Entry system keeps, in addition, Real and Nominal Accounts. The business man, however, is interested not so much in the technical side of the subject as he is in the relative advantages of Double Entry over Single Entry. Instead of detailing these points now, the reader is referred to the summary at the end of this chapter, where a comparative table will be found, prepared in such a way as to bring out the points involved most distinctly.

It is suggested that this comparative table be not committed to memory. In order to make it reasonably complete, it was necessary to include certain points which will not be discussed until later. Thus, it will be well for the student to return to this summary after completing the book.

Card Ledgers.—Because Single Entry Bookkeeping contemplates the keeping of Personal Accounts only, it is quite natural to discuss Ledger cards in the present connection. It is to be understood, however, that such cards are very frequently employed for the keeping of Personal Accounts which are part of a Double Entry system. A Ledger card is essentially a Ledger page ruled on cardboard, though many modifications of the type Ledger ruling are employed.

The principal arguments in favor of such cards are:

(*a*) They are self-indexing. Bound Ledgers must be indexed as an aid to the finding of desired accounts, while cards may be arranged alphabetically, or otherwise, so as to obviate the necessity of an index.

(*b*) They are most accessible. Filled cards, or cards of former customers, may be filed away, so that the current cabinet contains only live accounts.

(*c*) They minimize errors in posting. Inasmuch as the card to which posting is made may be placed close beside the original entry, the errors due to the distance which often separates the original from the final entry mediums, when large bound books are employed, are obviated.

(*d*) They improve office efficiency. When there is much posting to be done, or many statements to be sent out, or whenever it is desired that information regarding Personal Accounts be obtained quickly, a number of clerks may be set to work by alloting to each a certain number of cards.

Other advantages are also attributed to Ledger cards, but those already given must suffice for the present study. Before turning from the subject, however, it is necessary that two disadvantages be pointed out.

(*a*) Cards may be lost. In order to post on the cards they must be removed from their compartments. Sometimes, too, they are temporarily removed during investigations or discussions affecting particular accounts. Cases are known where such cards as those referred to have been lost, and it is not necessary to point out the inconvenience to which this may lead.

(*b*) Cards may be misplaced. When returning cards it sometimes happens that they are not placed exactly where they belong. This possibility often leads to quite serious results.

Loose-Leaf Devices.—America has been prolific in its production of loose-leaf devices,—some indifferent, some poor, not a few good. We shall here very briefly refer to the so-called loose-leaf Ledgers, because the subject is so intimately connected with card Ledgers just discussed.

A loose-leaf Ledger ordinarily cannot be distinguished from the bound one. Close inspection will reveal the binding clasps which, when unlocked, will permit of the withdrawal or insertion of pages. All the advantages of card Ledgers, with the usual exception of (*c*) and (*d*), may be ascribed to the loose-leaf books. The disadvantages true of cards do not hold here, except in the rare cases where pages are frequently removed.

Summary

Single Entry Bookkeeping keeps Personal Accounts only. In actual practice, Single Entry is more usually found to be incomplete Double Entry. In order to change to Double Entry it is necessary to add those Real Accounts which, when taken into consideration with the existing Personal Accounts, will enable one to make a Statement of Assets and Liabilities. The Nominal Accounts which are found in connection with Double Entry Bookkeeping will be created as transactions involving them occur.

The following steps are usually taken to effect the change:

(*a*) Ascertainment of the present capital.
(*b*) Finding the net profit or the net loss.
(*c*) The last Single Entry entry so as to credit the Proprietor's Account for the net profit or to charge it for the net loss.
(*d*) Closing the old books.
(*e*) Opening the new books.

A comparison between the two systems may be arranged in parallel columns, thus:

DOUBLE ENTRY	SINGLE ENTRY
1. Personal, Real, and Nominal Accounts are kept.	1. Personal Accounts are kept.
2. Trial Balance to prove accuracy of posting.	2. Cumbersome and little-known "Proof of Posting" to test accuracy of posting.

DOUBLE ENTRY	SINGLE ENTRY
3. The *Balance Sheet*, prepared from the books.	3. Statement of Assets and Liabilities prepared from books and other sources.
4. Profit and Loss Statements prepared from the books.	4. Statement of Profit or Loss possible.
5. Nos. 3 and 4, above, mutually check and prove each other.	5. No proof.
6. *Sources* of profits or losses ascertainable.	6. ———
7. Systems of internal check are available so as to prove a deterrent on fraud.	7. Absence of such checks may prove a temptation to fraud and carelessness.
8. Statistical and cost data, information to establish fire, burglary, or credit losses, etc., available.	8. ———
9. Applicable to all kinds of business, large or small.	9. Suitable for retail concerns, like grocery or provision houses, having a large number of customers; card Ledgers are an advantage here.

Two of the products of recent progress in detailed accounting are card Ledgers and loose-leaf Ledgers. These are quite in vogue, especially where many Personal Accounts are kept. Much is to be said in favor of these new devices, but a few disadvantages are also connected with their use.

EXERCISES

Group One

1. Differentiate between Single Entry and Double Entry Bookkeeping.
2. Mention three important items of information which could not be obtained from a Single Entry set, but which could be gotten from a Double Entry set.
3. Write a letter to the proprietor of a wholesale dry-goods house whose books have been kept by Single Entry so as to convince him that he should have them changed to Double Entry.
4. Argue in favor of Double Entry for a retail furniture concern.
5. How would you change a Double Entry set to a Single Entry one?
6. Outline a form for the "Proof of Posting" for a Single Entry Ledger to which postings are made from a Journal, Cash Book, Sales Book, and Purchase Book.
7. State how you can ascertain the profit or loss of a business whose books have been kept by Single Entry.
8. Describe card Ledgers and loose-leaf systems.

Group Two

1. L. E. Smythe began business on April 1, 1912, by investing cash, $3,000.00; merchandise, $1,700.00; and office furniture, $400.00. His withdrawals were as follows: July 3, 1912, cash, $100.00; Dec. 27, 1912, cash, $250.00; Feb. 5, 1913, merchandise for private use, $30.00. On March 31, 1913, his Ledger

contains his own account and also the following balances:

(*a*) Customers:

Bailey & Co.	$495.00
R. Sommers	1,365.00
Jansen & Rowe	2,400.00
T. L. Sellers	590.00

(*b*) Creditors:

Cole & Johnson	$1,500.00
Allis & Co.	490.00

From other sources of information it is ascertained that the cash in bank amounts to $6,415.00, and that there is $165.00 in the safe. The goods are inventoried at $3,400.00; office furniture, $300.00; Mr. Smythe holds a note in his favor for $200.00; while he has outstanding two notes of $4,000.00 each, both in favor of his bank.

A. Find the present value of Mr. Smythe's business, March 31, 1913.

B. Find his net profit or net loss.

2. Change the old books to the Double Entry system.
3. Close the old books and open a new set to be kept by Double Entry.
4. Open the new books, introducing customers' and creditors' Controlling Accounts.
5. Make the last Single Entry Journal entry in Mr. Smythe's books.
6. Show Mr. Smythe's account in the old Ledger after posting the entry referred to in the last question.

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CHAPTER V

PARTNERSHIP ACCOUNTING

A STUDY of commercial history reveals the economic basis underlying the formation of partnerships. The need of more capital, the impossibility of one man to be in more than one place at one and the same time, division of labor, and the fact that the interests of a sole proprietor may be jeopardized by the owner's illness are among the considerations which have given rise to copartnerships in the past, and which will be responsible for the continuance of such organizations.

The legal relations existing between partners form a most absorbing study, and their thorough mastery by the accountant is essential. Space will not permit, however, a discussion of the law involved. In Chapter VI, dealing with corporation accounting, there will be found a tabular summary comparing partnerships and corporations, and to this table the student is referred for a synopsis of some of the main points of partnership law.

Most partnerships do, and all should, begin with a written agreement. This contract should state clearly the rights and duties of the individual partners, for experience confirms the frequently quoted statement that the great majority of legal disputes between partners might have been avoided by a strict observance of the advice mentioned.

A typical form of partnership agreement is herewith shown:

ARTICLES OF COPARTNERSHIP

THESE ARTICLES OF AGREEMENT, made and entered into this second day of January, one thousand nine hundred and thirteen, by and between John Doe, of the city of New York, party of the first part, and Richard Roe, of the same place, party of the second part,

WITNESSETH, as follows:

1. The said parties above named hereby agree to become partners in the retail shoe business, located in the city of New York, under the firm name and style of Doe & Roe, said partnership to continue for five years from the date hereof.

2. The capital of the said partnership shall consist of eight thousand dollars ($8,000), in cash, contributed as follows: John Doe to contribute five thousand dollars ($5,000), and Richard Roe to contribute three thousand dollars ($3,000). The said contributions are to be employed as a common fund in the conduct of the business, for their mutual benefit and advantage.

3. During the continuance of the partnership herein mentioned, each of the partners shall give his time, skill, and attention to the business, and exert his best powers for their joint interest, profit, benefit and advantage, and truly buy, sell and trade with their joint stock, and the increase thereof in the said business. They shall bear, pay and discharge equally between them all expenses of the business; all losses and all gains arising from the conduct of the business shall be borne and divided equally between them.

4. For the time, skill and attention given to the business John Doe shall receive the sum of one hundred dollars ($100.00) per month, and Richard Roe the sum of seventy-five dollars ($75.00) per month, said sum, in both cases, to be charged to Salaries Account.

5. Neither partner shall draw more than one hundred dollars ($100.00) per month, in addition to the salary herein stipulated and allowed, and such drawings shall be charged to their respective Personal Accounts. If at the end of each year it is found that either partner's withdrawals exceed his share of

the net gain for the said year, then he shall immediately reimburse the firm with the amount of the deficit.

6. All the transactions of the partnership shall be truly entered in Double Entry books of account, and the same are to be audited periodically by a certified public accountant. On the thirty-first day of December of each year the books shall be closed by a certified public accountant, and the net profit or net loss for the year ascertained and apportioned.

7. The said parties hereby mutually agree that during the continuance of the said partnership neither of them shall endorse any note, or become surety for any person, without the written consent of the said other partner.

8. And it is finally agreed that at the termination of the said partnership the said partners, each to the other, shall and will make a true, just and final account of all things relating to their said business, and in all things truly adjust the same; and all the stock, as well as the gains and increase thereof, which shall appear to be remaining, either in money, goods, wares, fixtures, debts and otherwise, shall be equitably divided between them.

IN WITNESS WHEREOF, the parties hereto have hereunto interchangeably set their hands, the day and year first above written.

JOHN DOE. (L. S.)
RICHARD ROE. (L. S.)

(These documents conclude with the signature of a witness, and the attest of a notary public.)

The student is advised to make an outline of the above, or of a similar agreement, in order to ascertain how many of the following essential features have been provided for:

1. Date of commencement.
2. Parties.
3. Nature of business.
4. Location of business.
5. Firm name.
6. Duration of partnership.

7. Individual investments.
8. Rights and duties of partners.
9. Division of profits or losses.
10. Compensation.
11. Personal drawings.
12. Books of account.
13. Auditing of books.
14. Dissolution.
15. Interest on investments.

The object of this preliminary study is not to enable the accountant to draw up articles of copartnership,—the work of trained lawyers,—but to suggest the attitude of the accountant, who, in order to safeguard the interests of his clients, should be able to pass expert judgment upon proposed agreements between members of a firm.

Accounting.—The difference between the books of a sole proprietor and of a partnership, in the same line of business, is a slight one. The entries for sales, purchases, returns, settlements, and other transactions are identical. The existence of additional Proprietors' Capital and Personal Accounts is the distinguishing feature of partnership Ledgers. It is therefore evident that we are already familiar with the ordinary bookkeeping routine, and that, if there is anything peculiar to the accounting of partnerships, we must look for it elsewhere. Opening entries, closing entries, entries upon dissolution, the paying off of a retiring partner, and the admission of a new partner, —these are the topics to which we will direct attention.

Routine Entries.—In order to satisfy the possible curiosity of the student we shall spend a few minutes on routine entries, so as to eliminate any which might be regarded as existing in partnership relations only.

Suppose that, of two partners, one is the outside man who is entitled to expenses incurred while on the road. When payments are made to reimburse him for outlays it is usual to charge Traveling Expense Account and to credit Cash, thus:

Traveling Expense	$——	
[1] To Cash		$——

If, however, the partner should hand in his expense slip without drawing payment therefor, instead of crediting cash he should be given credit for the amount. The transaction might be regarded as an additional, though temporary, investment:

Traveling Expense	$——	
To (Partner), Personal		$——

The student should notice that *not* the Capital Account, but a Personal Account, is employed. The reason for this usage lies in the fact that the Capital or Investment Account is reserved for the purpose of showing the capital invested at the beginning of the period, while any changes prior to the adjustment at the end of the period are shown in another account. This other account is often called a Drawing, instead of a Personal, Account.

Another transaction closely related to the one just discussed occurs when a partner entitled to salary elects not to draw the amount due him. Here, too, it is clear, the act on the part of the proprietor is equivalent to a temporary investment, and the entry should be:

Salaries	$——	
To (Partner), Personal		$——

Withdrawals of cash or of merchandise, or payments by the firm for the personal benefit of a partner, should be charged to the said partner's Personal Account.

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[1] The term "to" is employed to precede the first credit item of a Journal entry, in conformity with the practice of most accountants, though many regard this convention as useless.

Opening Entries.—A cash investment by an individual, as we already know, results in a charge to Cash Account and a credit to the Proprietor's Account. If two persons enter into a partnership, each of them investing cash, the transaction results in *two* entries, each like the one for the individual entry just described. But should the investment of one of the proprietors be in something else than in cash the entry therefor must be slightly modified. The partner must still be credited for the amount of his investment, but, instead of debiting Cash Account to offset the credit, other assets must be charged, in suitably styled accounts, for the amounts represented by their value. A final modification becomes necessary when a partner's investment consists of assets turned over to, and liabilities assumed by, the firm. In such cases each asset

Journal

	January 2, 1913 John Doe, Richard Roe, and Frank Soe have this day formed a partnership according to articles of copartnership executed this day. Their investments follow:				
√	Cash	5,000	00		
	To John Doe, Capital			5,000	00
	Investment as per agreement				
√	Cash	3,000	00		
	Merchandise	1,500	00		
	To Richard Roe, Capital			4,500	00
	Investment as per agreement				
√	Cash	1,200	00		
	Merchandise	1,500	00		
	Notes Receivable	1,000	00		
	Office Furniture	500	00		
	Accounts Receivable	3,000	00		
	To Notes Payable			3,000	00
	Accounts Payable			1,000	00
	Frank Soe, Capital			3,200	00
	Investment as per agreement				

is debited, each liability is credited, and the Proprietor's Account is credited for the difference—his net investment.

The Journal entry for an investment such as just described, for the one preceding it, and for a cash investment involved in a partnership consisting of three individuals is shown on the preceding page.

Some explanations regarding the above entries are in order. The reason why the details of the copartnership agreement are omitted is because it is not desirable that every one who has access to the books shall be in a position to learn the private affairs of the firm. It is to be noticed that Cash Account, in all of the three entries, is checked. This is to prevent posting to the General Ledger, as cash has been debited in the Cash Book. The details of Accounts Receivable and of Accounts Payable, part of Mr. Soe's entry, will be found in a schedule attached to the copartnership agreement. It is of course necessary to list the separate accounts in the auxiliary Ledgers, and for this purpose it is better to show the opening entry in a Journal containing extra columns, such as the one illustrated on page 54.

Sometimes a partner invests notes and accounts, guaranteeing their goodness. Upon subsequent default the loss falls upon the partner. The entry for such a note, when returned dishonored, with protest fees incurred thereon, is:

(Partner), Personal	$1,002.50	
To Notes Receivable		$1,000.00
Cash		2.50

and, in the case of a debtor's account proving uncollectable, the following is the entry:

(Partner), Personal	$300.00	
To Accounts Receivable (Customer)		$300.00

But where no guarantee is given, and where the items are accepted at a certain figure, in case of losses of this kind an entry is to be made similar to the entry for such items when occurring in the ordinary course of business.[1]

Closing Entries.—Closing entries, in partnership as well as in other types of accounting, are often referred to as adjustments. It is now our purpose to consider various adjustments which arise in partnership accounting.

Let us consider a most simple example. Assume that all profits and losses have been transferred to the Profit and Loss Account in the Ledger, and that the balance of this account, one thousand dollars ($1,000.00), awaits adjustment—transfer to the proprietary accounts. Several cases may arise:

(*a*) Where the investments of each partner, say two of them, have been the same, and the matter of dividing profits or losses has not been mentioned in the copartnership agreement. Here each partner is entitled to $500.00, and the entry to close the Profit and Loss Account so as to adjust the net profit is:

Profit and Loss	$1,000.00	
To John Doe, Personal		$500.00
Richard Roe, Personal		500.00

(*b*) Where the conditions are exactly as set forth in (*a*), above, except that Doe has invested, say, $6,000.00, and Roe $4,000.00, the closing entry is:

Profit and Loss	$1,000.00	
To John Doe, Personal		$500.00
Richard Roe, Personal		500.00

The reason the division of profits is exactly the same in the second case as in the first is found in the law which

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[1] Such losses are referred to in Chapter VII.

holds that, *in the absence of a specific agreement to the contrary, all profits are to be shared, and all losses are to be borne, equally among partners.*

(*c*) The third case arises where the profits are specifically directed to be divided in other ways than equally. Three cases will be treated in this connection:

1. Profits to be divided according to investments.—In such instances the original investments of the partners are taken into consideration. The total firm investment is treated as the denominator of a fraction, the individual investments as the numerator, and the net profit as the sum of which the fraction is taken. To illustrate: According to this division Doe and Roe, in example (*b*), above, would share as follows:

$$\text{Doe, } \frac{6000}{10000} \text{ of } \$1{,}000.00 = \$600.00$$

$$\text{Roe, } \frac{4000}{10000} \text{ of } \$1{,}000.00 = \$400.00$$

2. Profits to be divided according to *net* investment.—Here the procedure is along the same line as in "1", above, but the fraction has a numerator consisting of the individual net investment, and a denominator which is the sum of the separate net investments.

It is hardly necessary to point out that the net investment is the credit balance of the partners' accounts where only one account is employed. If, however, a Capital and a Personal Account are employed, the credit balance of the latter is added to, or the debit balance of the latter is deducted from, the balance of the Capital Account.

3. Profits to be divided according to *average* investment.—As in the previous cases, assume that the net profit to be divided is $1,000.00, and that the accounts of Doe and Roe are, respectively, as follows:

John Doe, Capital

	Jan. 1 .... $6,000.00

John Doe, Personal

Apr. 1 .... $100.00	Jan. 1 .... $150.00
May 1 .... 50.00	
Nov. 1 .... 200.00	

Richard Roe, Capital

	Jan. 1 .... $4,000.00

Richard Roe, Personal

Apr. 1 .... $50.00	
May 1 .... 50.00	
Sept. 1 .... 100.00	
Dec. 1 .... 50.00	

It is clear that Doe's investment was never more than $6,150.00 ($6,000.00 plus $150.00), never less than $5,800.00 ($6,150.00 minus $350.00), hence the average investment is somewhere between $6,150.00 and $5,800.00. Consider this simple solution:[1]

[1] The principle upon which the solution is based is that the *use* of $100.00 for three days is equivalent to the use of $300.00 for one day, or of $150.00 for two days, or of $50.00 for six days. Note that the process is the same as the "product" method of some texts in arithmetic. The student can easily prove the correctness of the given equations, by determining the interest on the result for the equated time.

Investment:	$6,000.00 for 12 mo., or	$72,000.00 for one mo.	
	150.00 for 12 mo., or	1,800.00 for one mo.	
Total investment..............		$73,800.00 for one mo.	
Withdrawals:	$100.00 for 9 mo., or	$900.00 for one mo.	
	50.00 for 8 mo., or	400.00 for one mo.	
	200.00 for 2 mo., or	400.00 for one mo.	
Total withdrawals..............		$1,700.00 for one mo.	

$73,800.00 less $1,700.00, equals $72,100.00, average for one month; $72,100.00 divided by 12, or $6,008.00 (plus), the average investment.

Notice that $6,008.00 lies between the limits previously found, and observe that the value of gauging the result in advance is to prevent answers ridiculously low or high.

The student should determine the average investment for Roe, apportion the net profit of $1,000.00 according to the method shown in "1", above, and make the Journal entry necessary for the final adjustment.

Interest on Investments.—The question of determining interest on partnership investments arises when the articles of agreement so specify. In such cases interest is to be calculated and adjusted prior to the apportionment of net profits just discussed. The problem before us is twofold: how to determine the amount of interest to be allowed or charged, and the entries necessary for the adjustment of the interest as found. We shall consider the latter problem first.

Assume that we are interested in the affairs of three partners, Doe, Roe, and Soe, whose copartnership agreement contains a clause directing that each partner be allowed interest at six per cent. per annum on his net investment. Assume, further, that Doe is entitled to $45.00 interest, Roe to $25.00, and Soe to $20.00. The problem now is how to adjust this interest. We must remember that each partner is to be credited with the amount he is entitled to, and that the total is to be charged against profits, thus reducing the amount to be divided among the members of the firm. A number of solutions suggest themselves:

Solution (a):

Profit and Loss	$90.00	
To Doe, Personal		$45.00
Roe, Personal		25.00
Soe, Personal		20.00

As some accountants object to a direct charge to Profit and Loss in such cases, arguing that some nominal account should show expenses or losses arising out of such interest transactions, we have:

Solution (b):

Interest	$90.00	
To Doe, Personal		$45.00
Roe, Personal		25.00
Soe, Personal		20.00

The most serious objection to this entry is that Interest is the title of an account reserved for excess payments between outsiders and ourselves, while the allowance under discussion is a sort of family affair. To meet this objection, consider:

Solution (c):

Interest on Partnership Investments	$90.00	
To Doe, Personal		$45.00
Roe, Personal		25.00
Soe, Personal		20.00

It is easily seen that the last two solutions differ little from the first, because either Interest Account or Interest on Partnership Investments Account is closed into Profit and Loss Account. As it is sometimes requested to make the adjustment we are considering *without* employing any Nominal Account at all, we offer:

Solution (d):

Roe, Personal	$5.00	
Soe, Personal	10.00	
To Doe, Personal		$15.00

Each of the first three solutions would have reduced the profits available for division by $90.00, or $30.00 would have been the amount each partner received less. But if Doe received $30.00 less in profits it was because he had received (been credited with) $45.00 interest, a net increase of $15.00 to him. Roe would have suffered to the extent of $30.00 less in profits, also, but then he would have received $25.00 interest, a net loss or decrease to him of $5.00. Similarly, Soe's net decrease would have been $10.00. Inasmuch as the above entry benefits Doe with $15.00 by increasing his balance, and decreases Roe's and Soe's accounts $5.00 and $10.00, respectively, it should be clear that the adjustment does accomplish the desired end. Of course, the profits undiminished by the amount of interest would then be distributed among the partners. In such cases as these, after adjusting interest, the net profit is usually divided equally among the members of the firm.

The author prefers solution (*c*), above, as a general rule. The nominal account therein employed is clearly self-descriptive, and thus conforms to one of the standards imposed by accountants. Solution (*d*) is favored only when it is specifically requested that the use of nominal accounts be avoided.

The Amount of Interest.—We have just learned how to adjust interest on investments of partners. The discussion assumed that the amount of interest had been calculated. It must now be shown how to determine the interest from the accounts of the partners, though one may almost take it for granted that students of accounting are sufficiently familiar with commercial arithmetic to make the proposed step unnecessary.

For the sake of illustration we shall consider the accounts of Messrs. Doe and Roe, shown on page 95. From the partnership agreement it is learned that partners are to be allowed six per cent. interest per annum on their investments, and charged at the same rate on all withdrawals. Let our problem be to determine how much interest John Doe is to receive.

(1), An elementary form of solution is herewith given:

Interest on investment:

$6,000.00 plus $150.00, $6,150.00, for 12 mo. at 6% $369.00

Interest on withdrawals:

$100.00 for 9 mo. at 6%................	$4.50	
50.00 for 8 mo. at 6%................	2.00	
200.00 for 2 mo. at 6%................	2.00	8.50

$369.00, less $8.50, the amount of interest due John Doe $360.50

(2), The author advocates the following solution as much easier in the more complicated cases which occur in actual practice:

The average monthly equivalent balance, found on page 96, is $72,100.00. The interest on this sum for one month is the same as just found:

$72,100.00 at 6% for one month.........$360.50

Dissolution of Partnership.—A partnership is terminated at the expiration of the term agreed upon, at the death of a partner, at will, or at other times, for various reasons more fully discussed in texts on law. Regarding the legal features we shall merely state that, at dissolution, a notice should be mailed to all persons with whom the firm had trade relations, and that a similar notice should be inserted in "a local newspaper of wide circulation." We are then ready to concern ourselves with the accounting features involved.

In the simplest form the firm winds up its affairs gradually, by converting all its assets into cash, paying all debts, and dividing the balance of cash equitably. For example, if the final cash balance is $13,842.00 the net profit or net loss allocated or distributed among the partners' accounts should adjust them so that, say, Doe is entitled to $8,542.00 and Roe to $5,300.00. The final entry to close the books is:

Doe Capital	$8,542.00	
Roe Capital	5,300.00	
To Cash		$13,842.00

Instead of closing out the business themselves, the partners might appoint a "liquidating" committee of one or more persons to do so for them. The accounting involved is reserved for treatment in a later chapter dealing with "Realization and Liquidation."

When one of the partners retires, the dissolution notice already referred to must be distributed, and certain entries must be made in the books. The first step usually consists of closing the books and adjusting the profit or loss so as to disclose the condition of the partners' accounts, and thereby the relation of the partners to each other. Say that, in a given case, after taking these steps, John Doe's Capital Account has a credit balance of $7,250.00 and his Personal Account a credit balance of $250.00, while Richard Roe's Capital Account has a credit balance of $4,150.00 and his Personal Account a balance of $150.00 on the debit side. How much should Doe pay Roe, and what entries should be made when paying the latter off?

$4,150.00 minus $150.00 or $4,000.00 represents Roe's interest in the firm, and the amount to which he is entitled. The first entry is to close the Personal into the Capital Account:

Richard Roe, Capital	$150.00	
To Richard Roe, Personal		$150.00

Upon payment of cash the following entry closes Mr. Roe's account:

Richard Roe, Capital	$4,000.00	
To Cash		$4,000.00

If the payment is made in cash and in notes, this entry would result:

Richard Roe, Capital	$4,000.00	
To Cash		$1,500.00
Notes Payable		2,500.00

Two other cases interest us. They occur when the retiring partner accepts less than his net capital, as shown by the books, or when he receives more than this amount.

Let us first consider the entries when Roe accepts $3,500.00 in full payment of his rights and interest in the firm. This means that a payment of $3,500.00 cancels a proprietary credit of $4,000.00, or, in other words, that the net capital of the firm is $8,000.00 ($7,500.00 plus $500.00), and that all of it belongs to John Doe. The entry, when paying Roe off, is:

Richard Roe, Capital	$4,000.00	
To Cash		$3,500.00
John Doe, Personal		500.00

It is to be noticed that Roe's account must be canceled, while the $500.00 of profit created is credited to the continuing partner, whose accounts represent the firm's total capital now.[1]

The other case in connection with the present discussion arises when the retiring partner is given more than his balance shows. Let us see how to treat the situation when Roe is given $4,500.00 in payment of his proprietary interest in the business, that is, for his balance of $4,000.00. The following entry, corresponding to the previous one, will probably suggest itself:

Richard Roe, Capital	$4,000.00	
John Doe, Personal	500.00	
To Cash		$4,500.00

An analysis will show that the excess of $500.00 has been charged to Mr. Doe's account, presumably in the belief that the firm's capital has been reduced by this amount, and the new state of affairs must be reflected in the proprietary accounts of the remaining partner. But has the capital of the partners really suffered a decrease of $500.00? Is it not more likely that the partners recognized that their business was worth more than the sum of the values of their tangible assets, in view of the fact that the *established organization* was able to earn profits? We incline to the affirmative of this last view, so we must be prepared to represent, on the books, the value of that intangible something for which Mr. Doe was willing to pay $500.00. The asset thus created is called *goodwill*, which we shall consider at some length. The entry for the transaction under discussion follows:

Richard Roe, Capital	$4,000.00	
Goodwill	500.00	
To Cash		$4,500.00

[1] The $500.00 might have been credited to the Capital Account. What would the entry be if the assets had declined in value?

Goodwill.—The subject of goodwill is more frequently considered in connection with corporate affairs, but there is good reason for discussing it here, in view of the fact that both the decisions of the courts and the custom of merchants have recognized its legitimate place whenever a business is bought or sold. We shall consider the subject as to its nature and then as to its value in any given case.

The author has in mind a certain newspaper stand on one of the busiest thoroughfares in the city of New York. A constant stream of people, on their way to work, passed this place in the morning and again on their return from business in the evening. Many stopped to get their papers from the woman who owned the stand. A news company wished to buy her place, but, as she refused to sell at the figure offered, the company erected competing shacks nearby, and even placed their agents so as to shut off the woman's stream of customers. But the force of habit was so firmly fixed that the buyers continued to get their papers at the old woman's stand. Finally the company paid her a much higher price than it had previously offered.

Why did the company pay so much more for the property than it could be built for? Simply because there was reason to believe that trade would continue despite change in proprietorship, and that past profits would not cease. The excess of the price paid over the replacement value of the property obtained is called *goodwill.*

Ordinarily, goodwill is appraised at what is known as the purchase of a number of years' average profits. The profit employed is usually the net profit diminished by some arbitrary rate per cent. on the capital invested. For example, assume that the investment of a certain firm was $10,000.00 during 1909, $12,000.00 during 1910, and $12,000.00 during 1911, while the corresponding net profits were \$1,800.00, \$2,000.00, \$2,100.00, respectively. If six per cent. be regarded as a fair return on capital investment in such a business as is being considered, then six per cent. on \$10,000.00, or \$600.00, may be deducted from the net profit for 1909, leaving a balance of \$1,200.00 (\$1,800.00 less \$600.00). In a similar way, \$1,280.00 and \$1,380.00 are obtained for the years 1910 and 1911, respectively. The average yearly profit, based upon the results of the past three years, is:

$$\begin{array}{rr} & \$1,200.00 \\ & 1,280.00 \\ & 1,380.00 \\ \hline 3\ ) & 3,860.00 \\ \hline & \$1,286.67 \end{array}$$

If it is agreed to pay for the goodwill four years' purchase of net profits, then \$5,146.68 ($4 \times \$1,286.67$) is the price. The price paid for the business is then this amount plus the appraised or agreed upon value of the assets diminished by any liabilities assumed by the purchaser.

In this connection, let us return for a moment to the final entry in the last section, when paying Richard Roe \$500.00 in excess of his proprietary balance. The student should see clearly that the firm capital has been diminished by only \$4,000.00, because, for the additional \$500.00 of cash disbursed, the business secured a new asset, *goodwill.* But what is this asset? It is the privilege of the business to retain future profits, earned because of the reputation previously created, without sharing them with Mr. Roe, who, until his retirement, was entitled to a part of them.

As a concluding remark about goodwill, we wish to state that the question of its value arises upon the death of a partner, provided the business is to be continued as before his demise. The heirs of the deceased are interested in the question, because upon its determination depends the amount of their legacy. The state is also interested, for, in the adjustment of inheritance taxes, goodwill is regarded as valuable an asset as more tangible property.

Admission of a Partner.—The admission of a partner gives rise to the same steps, in general, as are necessary when creating a partnership. Indeed, a new partnership is formed. Articles of copartnership and opening entries must be made. The sections with which this chapter starts are as applicable to the present discussion as they were to the question of starting a new firm.

If the business of T. Jones, a sole proprietor, is worth \$3,000.00, what entry should be made when R. Rollins accepts the former's offer to acquire "a half interest upon giving me \$3,000.00 in cash," and the payment is made? Most readers would decide upon:

Cash	\$3,000.00	
To R. Rollins, Capital		\$3,000.00

But let us delay for a moment. Is it not possible that Mr. Jones wishes to keep the \$3,000.00 personally, and in return therefor give or transfer to Mr. Rollins one-half of the existing business? This is certainly a possible interpretation, and it would be more readily agreed to if \$1,500.00 instead of \$3,000.00 was the stipulated price. Now, if the student is so ready to shift his stand because of a change in figures,—immaterial elements in the agreement,—the first interpretation cannot be over clear. As a matter of fact, either one of two propositions is intended, namely, that the capital of the business is to be increased, and hence the given entry is correct, or else that the \$3,000.00 is to be retained by Mr. Jones, who is then to transfer a half interest in his business to Mr. Rollins. In the latter case the following entry results:

T. Jones, Capital	$1,500.00	
To R. Rollins, Capital		$1,500.00

The reader will readily see that the firm's capital has remained unchanged, but that the proprietary interest has been divided.

As a result of this discussion it should not be necessary to emphasize the need of absolute clearness in stating the intentions of the parties to agreements of the kind in question. Any case is simple enough to solve, provided the facts are clearly stated or readily ascertainable. Before closing this chapter a few similar cases are to be considered.

Suppose that R. Rollins, in the above example, paid $4,000.00 cash, to be admitted as an equal partner with T. Jones, the payment to remain in the business. The entry should take into consideration and give expression to the fact that the firm capital has been augmented from $3,000.00 to $7,000.00, and that each partner has a $3,500.00 interest in the business. It will be seen that the following Journal entry increases Mr. Jones' balance to $3,500.00 ($3,000.00 plus $500.00), and opens Mr. Rollins' account with $3,500.00:

Cash	$4,000.00	
To R. Rollins, Capital		$3,500.00
T. Jones, Capital		500.00

Had Mr. Rollins' payment, under the same conditions, been $2,500.00, certain changes in the entry would be necessary. In the first place it should be known that there is as much likelihood that an incoming partner will be permitted to buy a share in the business under full value as that an excess payment will be required. The reasons for the former arrangement might be found in the fact that actual cash might be prized more highly than an equivalent value represented by less liquid assets, and also that some appreciable value might be attached to the benefits which would result from the efforts of the new partner. Now, when only $2,500.00 is added to the business, the firm's capital becomes $5,500.00, of which the partners are to have equal shares. But as Mr. Jones' account is $250.00 too great, while Mr. Rollins would be credited with only $2,500.00 as a consequence of his investment, $250.00 must be transferred from the former's account to the latter's. Either entry (*a*) or entry (*b*) would give proper expression to the situation, but (*a*) is to be preferred as simpler and clearer:

(a)	Cash	$2,500.00	
	To R. Rollins, Capital		$2,500.00
	T. Jones, Capital	250.00	
	To R. Rollins, Capital		250.00
(b)	Cash	$2,500.00	
	T. Jones, Capital	250.00	
	To R. Rollins, Capital		$2,750.00

Joint Ventures.—Two or more persons may combine some capital for the purpose of buying and selling a single article, as a boat or factory, or for the purpose of trading in a particular cargo of goods or produce of a firm or factory. They practically form a partnership for a definite purpose. The difference between their relations and that existing between ordinary partners is that the former is usually limited to a particular arrangement, while the latter is much more general, contemplates a much longer period of time for consummation, and is the more usual form. We shall consider a single proposition.

A. Brown and C. Downs agree to buy one hundred bags of coffee, Brown paying for the coffee while Downs cares for it and sells it. All expenses incurred are to be charged to cost, and the net profits are to be divided equally. Before final settlement the following Statement is approved by both men:

Disbursements by A. Brown:		
100 bags Coffee at $24.00	$2,400.00	
Storage	16.00	
Expressage	5.00	
		$2,421.00
Disbursements by C. Downs:		
Advertising	$40.00	
Storage	22.00	
Cartage	36.00	
		$98.00
Sales:		
80 bags at $29.00	$2,320.00	
20 bags at 25.00	500.00	
Cash received by C. Downs		$2,820.00

The solution should show the total cost, proceeds, profit, and distribution of profits. It should also show the interest of each party. The "Joint Venture Account" accomplishes the first purpose, while ordinary Personal Accounts suffice for the second. The formal solution follows:

Joint Venture of Brown & Downs in 100 Bags Coffee

Purchase, 100 bags Coffee	$2,400.00	Sales:	
Expenses of A. Brown	21.00	80 bags Coffee	$2,320.00
Expenses of C. Downs	98.00	20 bags Coffee	500.00
	$2,519.00		$2,820.00
½ profit to A. Brown	150.50		
½ profit to C. Downs	150.50		
	$2,820.00		$2,820.00

A. Brown's Account, Joint Venture in 100 Bags Coffee

Due from C. Downs	$2,571.50	Purchase of 100 bags Coffee	$2,400.00
		Expenses	21.00
		½ net profit	150.50
	$2,571.50		$2,571.50

C. Downs' Account, Joint Venture in 100 Bags Coffee

Proceeds of Sales:		Expenses.............	$98.00
80 bags Coffee.....	$2,320.00	½ net profit..........	150.50
20 bags Coffee.....	500.00		
			$248.50
	$2,820.00	Balance due A. Brown..	$2,571.50
	$2,820.00		$2,820.00

The student should notice that, while Brown paid for the coffee, Downs sold it and retained the proceeds. The relatively large balance due by Downs to Brown is accounted for by this fact.

Summary

Partnership relations are usually established through the instrumentality of a written agreement. It is essential that the articles of copartnership state clearly, fully, and definitely the rights and duties of the partners at the commencement of the relations, during their continuance, at the time of changes, and at dissolution. The accountant should be trained in the requisites of such agreements so that he may be able to pass expert judgment upon the efficiency of such agreements when they come before him.

The routine entries of partnerships do not differ from those with which we are already familiar. The opening entry is for the purpose of listing all the assets acquired, any liabilities assumed, and of giving the proprietors credit for their net investments. A Personal or Drawing Account is kept to record capital investment changes prior to the closing of the books.

Closing or adjustment entries are made at the end of stated periods, usually annually, so as to apportion the net profit or net loss for the term ended. Such profits or losses are always divided equally among the partners, unless there is a specific agreement to the contrary. Differences in capital investments are often recognized, not by sharing profits in unequal proportions, but by different amounts of salary drawings or by allowing interest on investments, or by both means. And, in the light of our law as it is, it is eminently fair that profits and losses be shared equally, regardless of inequalities of investment, for each partner is liable from his personal estate, with certain restrictions, for all the debts of the firm.

When the partnership is dissolved, a notice should be mailed to all concerns with whom the firm had dealings, and a similar notice should be inserted in "a local newspaper of wide circulation." Such dissolution exists when the partners dissolve relationship, when a partner dies, is declared insane or otherwise legally incapable, or when he is declared a bankrupt. It is then necessary to establish the financial status of each partner in the business. and this is accomplished by closing the books. The final entry, when the business is to be discontinued, closes all accounts; but, when a retiring partner is paid off, or the heirs of a deceased partner are settled with, only the latter's account disappears. As we have learned, three cases may arise for solution: a payment less than, equal to, or more than, the balance of the partner's account which is to be closed.

The admission of a new partner confronts the accountant with a situation similar to that which exists when the partnership relations are established. Some questions which require attention are: Is the payment of the incoming partner to increase the capital of the business, or for the original partner or partners personally? Does the incoming partner, whose investment is for the firm's use, acquire an interest less than, equal to, or more than, the value of his investment? Do the proprietors' accounts, as finally established, give proper expression to the wishes of the partners? Have the wishes of the partners, from the accounting point of view, been properly expressed in the articles of agreement drawn up by counsel?

A special case of partnership accounting exists when two or more men combine for the purpose of risking their money in a particular venture, or adventure, and the summary account showing the progress and result of the undertaking is called a Joint Venture Account.

EXERCISES

Group One

1. State the six most essential points in a copartnership agreement.
2. How are profits divided between partners?
3. Mention one legal and one accounting step necessary in case of the death of a partner.
4. Analyze and discuss the following clause, taken from a certain partnership agreement:

   "VIII. And it is further agreed that the said party of the second part is to pay to the said party of the first part the sum of three thousand dollars ($3,000.00); for which the said party of the second part shall receive a one-third (1-3) interest in the said business of the said party of the first part. . . ."
5. Define investment, net investment, average investment, Drawing Account, interest on investment.

Group Two

1. The net profit of the firm of A., B., and C. was found to be $6,000.00. The net investment of the firm was $80,000.00, divided as follows: A., $40,000.00; B., $25,000.00; C., $15,000.00. Show Journal entry to apportion the net profit.

2. D. and E. are partners. Part of D.'s original investment consisted of ten shares of Old Jersey Bridge Co. stock, guaranteed by him to be worth $60.00 per share, and accepted and entered at this figure. At the end of the year the stock was disposed of at $18.00 per share. Make the necessary entries.
3. Find Richard Roe's average investment. (See page 95.)
4. Show the Journal entry to apportion the profit of $1,000.00 between Doe and Roe (see page 95) in case it is provided that:
   (*a*) Profits are to be shared equally.
   (*b*) Profits are to be shared in proportion to average investments.
5. Suggest some arrangement between Doe, Roe, and Soe (see page 97) to avoid even the last Journal entry shown. (The object of this question is to test the student's ability to get at the basic meaning of accounting solutions.)
6. To how much interest is Richard Roe entitled at six per cent. per annum? (See page 95.)
7. You are requested to determine the goodwill of a concern from whose books you gather the following facts:

   Net investments during 1908, $16,000.00; 1909, $18,500.00; 1910, $20,000.00; 1911, $20,000.00. The net profits during the same period were: 1908, $2,900.00; 1909, $3,100.00; 1910, $4,000.00; 1911, $2,600.00. You also find that no interest had been allowed on Capital Accounts, and that fair depreciation on fixtures and proper deductions for bad debts had been made.
8. F. and G. are partners in a wholesale drygoods business. F., the senior partner, agrees to retire, ac-

cepting for his interest $8,000.00 cash and five notes of $2,000.00 each, without interest, maturing at two-month intervals, commencing six months hence. The following Balance Sheet is prepared prior to paying F. off:

Balance Sheet of F. and G.

DECEMBER 31, 1913

ASSETS		LIABILITIES AND CAPITAL	
Cash	$12,000.00	Notes Payable	$15,500.00
Notes Receivable	10,000.00	Accounts Payable	11,000.00
Accounts Receivable	24,000.00		
Merchandise	10,000.00	Total Liabilities	$26,500.00
Fixtures	2,500.00		
		F., Capital	17,000.00
		A., Capital	15,000.00
	$58,500.00		$58,500.00

Required, the entry or entries when paying F. off.

9. Prepare a form of dissolution notice in the above premises. (See advertisements in the daily papers.)
10. Show the Balance Sheet after posting solution for Question 8.
11. Make Journal entry if H. pays $20,000.00 cash to the business and receives therefor a one-half interest in it. (After F. has retired.)
12. Entry if he pays G $7,000.00 personally for a one-half interest.
13. Entry if he invests $20,000.00 in the business, receiving a proportionate share in it.
14. Entry for Question 11 if payment was only $12,000.00. Show resulting Balance Sheet.
15. If in Question 1, Group Two, page 83, Mr. Smythe admitted James Franke to a one-third interest in the business upon the investment by the latter of $2,000.00, one-half cash and one-half by a six months' note, with interest at five per cent., show

the entries to open a new set of books, employing Controlling Accounts.

16. L. and M. are partners sharing losses and gains equally. Their books show a credit balance in L.'s account of $6,000.00 and in M.'s of $2,000.00. Their assets amount to $5,000.00, and their liabilities to $2,500.00. What is the financial relationship between the partners after paying the liabilities?

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CHAPTER VI

CORPORATION ACCOUNTING

THE student of the history of commerce will find much light in this subject on the causes contributing to the creation and growth of corporations. The need of greater capital, the desire to insure a greater duration than the individual human life affords, the demand for lesser obstacles to the transfer of rights of ownership in a business, and the need for less harsh liability are among the chief causes for the great popularity of the corporate form of enterprise. Though there is much to interest and edify in the contemplation of the various stages from sole proprietorship to partnership, and from the latter form of organization to that of limited partnership, joint stock company, corporation, and trust, this is not the place for such discussion.

It is desirable, however, to consider the organization of a corporation. At one time it was necessary to receive a royal grant; or, in our country, a special act of the legislature was necessary to grant a charter, but now any body of men who comply with the provisions of a general statute, known in New York as the Business Corporation Law, may form a corporation. The object of this statute is to standardize the manner of incorporating and to extend the privilege to all without regard to political or social connections.

Let us assume that four men decide to form a corporation in New York. In order to do so they must apply to the Secretary of State for a charter or certificate of incorporation. This certificate consists of an application to incorporate, approved by the Secretary of State, who causes the state seal to be attached to the application. *Thus, the certificate of incorporation is simply the application approved by the proper official.*

Instead of submitting a model certificate of incorporation, the reader is referred to any law text or some bookkeeping or other book, and asked to notice that the certificate of a New York corporation contains the following provisions:

A. Preface, or preamble, reciting that:
  1. All incorporators are of age;
  2. Two-thirds of them are citizens of the United States;
  3. At least one of them is a citizen of New York.

B. The substances proper:
  I. The name of the corporation:
    1. It must not too closely resemble the name of an existing company incorporated in the state.
    2. Ordinary corporations may not select a name like ——— Banking Co., or ——— Institute, because such corporations are created under other statutes.
  II. The purpose of the corporation:
    This section calls for a statement of the kind of business it is intended to conduct.
  III. The capital stock of the corporation:
    1. It must not be less than $500.00.
    2. There is no upper limit.
  IV. The shares of capital stock:
    1. The par value must be between $5.00 and $100.00, inclusive.

2. Business cannot be commenced until at least $500.00 has been paid in.
3. The number of shares of common stock which may be issued must be stated.
4. The number of shares of preferred stock which may be issued must be stated.

V. The location of the principal office:
It must be somewhere in the State of New York.

VI. The duration of the corporation:
Any number of years may be stated.

VII. The directors of the corporation:
1. The number may vary from three to thirteen, inclusive.
2. Provision may be made for having outsiders elected by defining the qualifications of directors as not including the ownership of stock.

VIII. The directors for the first year:
1. Names.
2. Addresses.

IX. Subscribers to the certificate:
1. There must be at least three, each one subscribing for at least one share.
2. Names.
3. Addresses.
4. The number of shares which each subscriber or incorporator agrees to take.

X. Miscellaneous provisions:
Other articles may be inserted limiting or defining the powers of the officers.

XI. Signatures of incorporators in presence of a notary public.

Discussion and Definitions.—An analysis of the provisions of the certificate of incorporation, supplemented by a study of corporate organization and management, helps the student to gain an understanding of the everyday affairs of corporations. He learns, for instance, that not the stockholders—the real owners—but a few men, called the board of directors, who are elected by the stockholders, are the managers of the business. During the period while the directors are serving, no stockholder, as such, regardless of how large an interest he may have, can take any part in the internal affairs of the company.

A number of terms have been employed, and it is advisable that a few of them be defined and explained. Take capital stock, for instance. The capital of a corporation, just as in the case of other forms of organization, is the amount represented by the excess of assets over liabilities. The amount of this capital is not limited, and cannot be, but in the case of a corporation its charter specifies that its *capital stock* shall be a certain amount, and it cannot issue more than this stated amount. This "stock" represents the effective bids or subscriptions for the specified capital. If at any time the capital exceeds the amount of capital stock issued, the excess is a "surplus." Ownership of stock is evidenced by certificates or shares, while the owner is called a stockholder or shareholder.

Each share of stock entitles the holder thereof to one vote and to one part of the net profits when "dividends are declared" by the directors. The number of votes, or the number of parts into which the dividends are divided, equals the number of shares of stock which have been issued.

Common stock is the name applied to the ordinary shares, while preferred stock is a kind with special privileges. Usually the difference between the two is found in the fact that the latter is entitled to a fixed and specified rate per cent. of dividend, while the former is not entitled to any until the latter has been paid. Should the profits of a given year not warrant the declaring and paying of preferred dividends, the holders of such preferred capital stock lose their claim, unless the stock is "*cumulative* preferred," in which case dividends "passed" or unpaid accumulate, and the sum of all preferred dividends must be paid before the holders of common stock are recognized at all. Other preferences may attach to preferred stock, but in all cases the nature of the preference must be clearly specified.

Books Employed.—Many other points connected with corporate affairs might be treated here, but we must hasten on. Before discussing the accounting proper it will be necessary to describe briefly various auxiliary books employed by corporations. The Business Corporation Law of New York requires every corporation "to keep at its office correct books of account of all its business and transactions, and a book to be known as a Stock Book, containing an alphabetical list of stockholders of the corporation, showing residence, number of shares held by each, the time when they became owners, and the amount paid thereon." The principal auxiliary books employed are the Minute Book, Stock Certificate Book, and Stockholders' or Stock Ledger.

The Minute Book is not unlike the Minute Book of a club or society. It contains a copy of the certificate of incorporation, and the "minutes," or happenings, of all stockholders' and directors' meetings. The certificate, it should be remembered, contains the subscriptions of its organizers. Subsequent subscriptions usually appear in a separate Subscription Book.

When subscriptions to stock are paid in installments, an Installment Book and an Installment Scrip Book are employed. The latter consists of receipts acknowledging payments on account and corresponding stubs. The former is a classified record of original subscriptions, with columns for installments due and paid and balances still unpaid.

The stock certificate book consists of blank certificates of stock, removable from stubs to which they are attached. Such certificates are so easily accessible to the student that it is not deemed necessary to describe them at length. Two points should be noticed, however: (*a*) Instead of issuing separate certificates for each share of stock, one certificate is issued, for as many shares as are required, by filling in a blank on the face of the certificate, "——— shares." (*b*) On the reverse side of these documents a form will be found, the purpose of which is to make possible the easy transfer of some or all of the shares represented by the certificate by means of a simple indorsement.

As will be shown later, the principal books of account of corporations do not keep any record with stockholders. But it is obviously necessary that some such record should exist. For this purpose a Stockholders' Ledger, or Stock Ledger, is used. The following form will explain its use:

Stock Ledger

(DEBIT SIDE)

Date	Certificate Nos.	No. of Shares	How Canceled	Par Value

(CREDIT SIDE)

Date	Certificate Nos.	No. of Shares	How Acquired	Par Value

Other auxiliary books, such as Transfer Books, Dividend Books, and others, are often employed. But, as we have already spent sufficient time over the preliminary aspect of the subject, we must refer the student for more detailed information regarding the matters referred to, as well as to those purposely omitted, to books dealing with corporation accounting specifically, some of which will be found listed in the bibliography attached to this chapter.

Opening Entries.—Let us say that four men, R. S. Rollins, T. M. Powers, Joseph T. Griffin, and John B. Sullivan, have decided to form the R. S. Rollins Trading Co. Their application for a certificate of incorporation to the Secretary of State, at Albany, N. Y., having been granted, you are requested to open the books of account. You learn that they incorporated for $10,000.00, divided into shares of $100.00 each, each one subscribing for twenty-five shares, and paying for the same in cash. Had the investment resulted in the formation of an ordinary partnership, Cash Account would have been debited for $10,000.00, and each of the investors credited for $2,500.00. But accounts are not kept with the individual owners of the corporation's stock, so another account must be improvised to take the place of the separate credits to the shareholders, in order to offset the debit to Cash account. *Capital Stock* is the title employed for this credit account. Hence, the entry:

Cash	$10,000.00	
To Capital Stock		$10,000.00

It is more usual, however, to record first the subscription to the capital stock, and then the payment of the subscriptions. And this is true even when the subscription is accompanied by the payment. The entry for the subscription should show clearly that the subscribers have become liable for the amount represented by their subscriptions, and, accordingly, must be represented by some debit entry. It is not usual to list the names of subscribers in the Journal as an explanation of the entry about to be shown, because this information is obtainable from the subscription book or subscription list. Some accountants do so, though, especially when there are very few subscribers. The entry is:

Subscriptions	$10,000.00	
To Capital Stock		$10,000.00

When the subscribers pay their subscriptions it is clear that Cash Account should be debited. But what account should be credited? Students often suggest Capital Stock Account, but a moment's reflection must disclose the error, for, by doing so, the account in question would be raised to $20,000.00, whereas $10,000.00, the amount already credited, represents the full authorized issue. Is it not manifest that subscriptions, representing a liability on the part of the subscribers, should be credited so as to close the account? In actual practice the entry would of course be made on the debit side of the Cash Book, but as we have agreed to employ Journal entries, regardless of what book would really be used, the entry should be:

Cash	$10,000.00	
To Subscriptions		$10,000.00

Before proceeding to discuss other entries involved in corporation accounting, let us show the entries for subscriptions and the payment thereof, with due observance of the technic required. The record of the subscriptions is made in the Subscription Book, as already indicated. Just as in partnership accounting, the opening Journal entry recapitulates the essential features involved. Study the following form;

THE R. S. ROLLINS TRADING COMPANY Incorporated under the laws of the State of New York on July 1, 1913, with an AUTHORIZED CAPITAL of $10,000.00, divided into 100 shares, each of a par value of $100.00				
July 1, 1913 Subscriptions[1]	10,000	00.		
To Capital Stock Various subscribers to the Capital Stock of this Company, as per Subscription Book.			10,000	00.
1 Cash	10,000	00		
To Subscriptions Payments, in full, received from all of the subscribers.			10,000	00.

It often happens that when subscribers agree to purchase stock they do so with a distinct understanding that payment is to be made in installments due at specific dates. When partial payments are made at any time, Subscriptions Account is credited for each payment, and the debit balance of the account shows the amount of subscriptions still unpaid. We are now to consider the entry if the subscriptions previously considered were to be paid in four equal installments, at three-month intervals. We are already familiar with the entry for the initial subscriptions. But, now that the installments have been agreed upon, it is necessary to make some entry for them. Is it not clear that the four installments take the place of the original subscriptions? If so, why not change the Subscriptions Account to the Installment Accounts? Before doing this,

[1] Often (*a*) Unsubscribed Capital Stock to Capital Stock Authorized, and (*b*) subscriptions to Unsubscribed Capital Stock.

however, an entry should be made in the Installment Book, previously referred to. The Journal entry is:

Installment No. 1	$2,500.00	
Installment No. 2	2,500.00	
Installment No. 3	2,500.00	
Installment No. 4	2,500.00	
To Subscriptions		$10,000.00

It is sometimes deemed best to indicate in the Ledger Account when installments fall due. For this purpose the titles might be modified, thus: Installment No. 1, due Oct. 1, 1913, etc.

As each installment is paid, receipts, called installment scrip, are issued, and entries made in the proper column of the auxiliary Installment Book. Cash Book entries are made for the receipt of the installment payments, the effect of which, when the installment has been paid in full, is shown by the Journal entry:

Cash	$2,500.00	
To Installment No. 1		$2,500.00

Should some subscriber default in his payment, the by-laws of the corporation usually provide that all previous payments shall be forfeited to the corporation, and that the company shall dispose of the stock as it sees fit. The balance of any installment accounts shows what payments have not yet been made, and unless the subscriber is bankrupt is treated as an asset.

When the final subscription has been received, the scrip is exchanged for certificates of stock. Entries are then made in the Stockholders' Ledger, as already described. Were a Balance Sheet to be taken at this stage, assuming the existence of no other transactions than those involved in the subscription and issuance of all stock, Cash (debit), and Capital Stock (credit), would be the only accounts left. And this result would be like that following the cash subscriptions to the capital stock of the company before any expenses had been incurred or any trading transactions entered into.

It might be noticed, by the way, that the Capital Stock Account in the General Ledger is a sort of Controlling Account of the Stockholders' Ledger. As each stockholder is credited when stock is issued to him, the sum of all the credit balances in the auxiliary Ledger must equal the credit to Capital Stock Account. The control is in no wise affected when a shareholder disposes of some or all of his holdings, for then the vendor is debited and the new owner credited to the special Ledger, still maintaining the control relationship originally existing.

Other Entries Occurring at Commencement.—When a corporation is organized and all the authorized stock is issued, it is sometimes found that the company lacks funds with which to carry on business. Instead of borrowing money on notes or bonds, the stockholders may vote to assess themselves amounts varying with their holdings of stock. If the shareholders of the Rollins Trading Co. decide to assess themselves $10.00 per share, the contributions thus raised amount to $1,000.00. The entry therefore is a charge to Cash Account, and a credit to what account? Donation and Contribution suggest themselves as appropriate titles. Even Profit and Loss, or Surplus, is sometimes suggested. A better title is found in the purpose for which the money was contributed,—in order to have some *working* capital. Hence, the entry suggested is:

Cash	$1,000.00	
To Working Capital		$1,000.00

If it is desired to acquire working capital, as was just suggested, the stockholders may decide to contribute some of their holdings instead of money. Accordingly, let us say that they donated ten per cent. of their holdings to the company to be disposed of to raise needed working capital. The first entry which suggests itself is:

Capital Stock	$1,000.00	
To Working Capital		$1,000.00

Let us look at this solution carefully. We find that it is wrong to charge Capital Stock Account, because we thereby either reduce the amount of the authorized issue, which is contrary to law unless permission has been obtained as a result of various legal steps, and even if the transaction did result in a cancellation of stock it would be necessary to keep the account credited for the full authorized issue until formally reduced. As a matter of fact, only the ownership has changed. The stock is to be disposed of, and, until sold, it is theoretically in the custody of the treasurer of the company, and it is accordingly called treasury stock.

"Working Capital Account" must also be somewhat changed. No working capital really exists until the treasury stock has been sold. Then, again, though we are positive of the amount of working capital contribution when cash is donated, this is not the case when stock is presented. The stock may sell above or below par, and, until actually sold, we are in doubt as to the amount ultimately to be realized. We show this uncertainty by employing the adjective "suspense," to modify the Working Capital Account. But let it be clearly understood that "suspense" refers not to the nature of the account, but to the *amount*. The first entry should be revised then:

Treasury Stock	$1,000.00	
To Working Capital Suspense[1]		$1,000.00

Reference must be made to two other transactions in

[1] Sometimes called Working Capital Reserve.

this connection. The first deals with the subscription to the treasury stock,[1] and the second with the sale thereof. When it is subscribed for, the following entry is made:

Subscriptions to Treasury Stock	$1,000.00	
To Treasury Stock		$1,000.00

Upon payment the subscription is canceled:

Cash	$1,000.00	
To Subscriptions to Treasury Stock		$1,000.00

On the assumption that the stock has been disposed of at par: Cash, debit, $1,000.00; and Working Capital Suspense, credit, $1,000.00, still remain. Now, as the amount is no longer in doubt or suspense, the latter account should be changed to Working Capital Account. The change is brought about by this entry:

Working Capital Suspense	$1,000.00	
To Working Capital		$1,000.00

We shall not leave the subject of Working Capital without considering, for a moment, the effect of disposing of the Treasury Stock at a discount, that is, at less than par. Let us suppose that it were sold at 90, thus realizing $900.00 instead of $1,000.00. Dispensing with the subscription entry, the solution would assume the following form:

Cash	$900.00	
(?) Account	100.00	
To Treasury Stock		$1,000.00

What shall be the title of the account to show the apparent loss of $100.00? Neither Discount Account nor any Profit and Loss Account will answer the need, because the busi-

[1] The entry for the subscription is often dispensed with, so that Cash and Treasury Stock are the only two accounts employed.

ness has suffered no loss at all. In reality $900.00, instead of $1,000.00, has been donated. Actually working capital amounting to $900.00, instead of $1,000.00, has been created. To reduce the amount of Working Capital Account by $100.00 it must be debited, and the entry consequently is:

Cash	$900.00	
Working Capital Suspense	100.00	
To Treasury Stock		$1,000.00

The final entry, to substitute the Working Capital Account for the "Suspense" Account, just as shown in the last paragraph, is:

Working Capital Suspense	$900.00	
To Working Capital		$900.00

Except in "close" corporations, that is, in organizations consisting of a very few stockholders who own all the stock, it is very unusual to secure subscriptions to all the authorized stock at once. If The Rollins Trading Company had been authorized to issue capital stock amounting to $25,000.00, but had secured subscriptions to only $10,000.00, as already shown, the reader unfamiliar with corporation accounting would naturally enough feel that the entry given on page 122 would still be correct; because, if several men combine in a partnership but invest less than the amount planned, an entry is made not for the contemplated or proposed capital but for the actual investment. The case is not as logical in corporation accounting. The full authorized issue must be shown at the start, even though the subscription is for less. The opening entry for The Rollins Trading Company, had the capitalization been placed at $25,000.00 instead of at $10,000.00, would be of the form:

Subscriptions	$10,000.00	
(?) Account	15,000.00	
To Capital Stock		$25,000.00

The question is how to show that some stock has not been subscribed for. Many texts call this unsubscribed stock "treasury stock," but most accountants do not approve of this term except for stock actually issued and then returned to the corporation. A considerable number of accountants, and also Professor Hatfield in his *Modern Accounting,* call this stock "unissued stock." The writer agrees with many other accountants that the title is an unhappy one, because stock subscribed for but not paid for is also *unissued* stock, and surely there is a difference between such stock and stock not yet applied for. Moreover, as we wish titles of accounts to express clearly the nature of the items they involve, we favor the term, "unsubscribed stock." The solution then is:

Subscriptions	$10,000.00	
Unsubscribed Stock	15,000.00	
To Capital Stock		$25,000.00

Subsequently, when new subscriptions are received, the entry made is of the following type:

Subscriptions	$———	
To Unsubscribed Stock		$———

Unsubscribed stock is sometimes shown as an asset on the Balance Sheet. Obviously it is only legal authority to issue stock, and consists of blank certificates, so it cannot be properly treated as of real value to the business. Moreover, though it is required to show the full capital stock authorization, it is not the best accounting practice to draw up a Balance Sheet showing a greater capital than actually exists. To meet the best accounting requirements, the items referred to are shown among the capital items on the Balance Sheet as follows:

Authorized Capitalization	$25,000.00
Less Unsubscribed Stock	15,000.00
Issued and outstanding capital stock	$10,000.00

In some cases stock is issued for values other than cash. It is then necessary to show the properties acquired instead of cash received. The first entry is for the purpose of recording the subscription, a process with which we are already familiar. The next step results in the extinguishing of the subscriptions by means of property acquired. We shall consider three cases:

1. When merchandise is given to cancel a subscription of $1,000.00. The entry is:

Merchandise	$1,000.00	
To Subscriptions		$1,000.00

2. When a patent right is transferred to the corporation in payment of a subscription of, say, $5,000.00. The entry is:

Patent	$5,000.00	
To Subscriptions		$5,000.00

3. A third case arises when real estate is given to the corporation to cancel a subscription of, say, $8,000.00. To complicate the situation somewhat, let us assume that property valued at $10,000.00, but with a mortgage of $2,000.00 thereon, has been turned over to the corporation. This is the entry:

Real Estate	$10,000.00	
To Real Estate Mortgage Payable		$2,000.00
Subscriptions		8,000.00

The Mortgage Account may be strange to some readers.

Notice that the net value of the property acquired is only $8,000.00 ($10,000.00 less $2,000.00), which equity cancels the amount of subscriptions. On the Balance Sheet, instead of listing the mortgage among the liabilities, some accountants prefer to deduct it from the real estate among the assets. The showing of the mortgage among the liabilities is as good practice probably.

If The Rollins Trading Company had been organized with an authorized capital of $25,000.00, of which $15,000.00 was in preferred stock and $10,000.00 in common stock, the opening entries would be like those previously given, slightly modified. Consider the following cases:

(*a*) Subscriptions received for all of the preferred and for one-half of the common stock, at par. The entry is self-explanatory:

Subscriptions to Preferred Capital Stock	$15,000.00	
Subscriptions to Common Capital Stock	5,000.00	
Unsubscribed Common Capital Stock	5,000.00	
To Preferred Capital Stock		$15,000.00
Common Capital Stock		10,000.00

(*b*) Then the subscriptions are paid in cash. No explanation appears necessary for the resulting entry:

Cash	$20,000.00	
To Subscriptions to Preferred Capital Stock		$15,000.00
Subscriptions to Common Capital Stock		5,000.00

(*c*) Upon receipt of additional subscriptions to the unsubscribed stock, the entry would be of this form:

Subscriptions to Common Capital Stock	$———	
To Unsubscribed Common Capital Stock		$———

Stock Issued at a Discount.[1]—Though a certificate of stock has a par value of $100.00, the quotations on any stock exchange will soon make clear that the actual price is above or below this amount. A corporation sometimes issues stock "below par," that is, for less than the face value of each share. We are now prepared to consider such a case. Suppose that The Rollins Trading Company had organized with an authorized issue of $10,000.00, all common stock, with a par value of $100.00 each, and that it had accepted subscriptions to all of its stock "at 90."

"At 90" means that subscribers had agreed to pay $90.00 per share. Now let us consider the required entry. It should be evident that subscribers become liable to the company for only $9,000.00, while they are to receive the full issue. At this point the entry would be:

Subscriptions	$9,000.00	
(?) Account	1,000.00	
To Capital Stock		$10,000.00

To which account should the $1,000.00 be charged? Discount is often suggested, but we cannot approve of it, because this name is already employed for a much more common account. Recalling what was said in the second chapter regarding the choice of titles of accounts, we should not be surprised to find that "Discount on Stock" is the style of the account we are seeking. The approved entry is:

Subscriptions	$9,000.00	
Discount on Stock	1,000.00	
To Capital Stock		$10,000.00

[1] New York and a number of other states prohibit the *issuing* of stock under par. The student should consult the corporation law of his own state regarding this point, and also regarding the liability of stockholders who subscribe to stock at less than the par value.

One other point requires our attention in the present connection. It is not the entry to be made when the subscriptions are paid, because that is simple enough. It is the status or meaning of "Discount on Stock." Though the item is a loss (a real debit balance represents either an asset or a loss), accountants do not favor writing this account off to Profit and Loss Account at the end of the year. The stand taken is based upon the fact that the discount in question is the result of raising funds to be used by the business during a long period. The discount represents a cost, not of one year, but of many years, and hence the cost should not be borne entirely by the year during which it is incurred, but rather by the years which have been benefited. In practice as much is charged off each year as the profits of that year will bear. The balance remaining at any time is treated as an asset.[1]

Issuing Bonds.—Corporations, just as other organizations, sometimes find that they have to raise funds. A favorite method, especially when the loan is desired for a number of years, is to issue bonds and sell them. In this connection we shall consider a few simple examples:

(*a*) Ten thousand dollars are borrowed as a result of issuing or selling or "placing" twenty-year bonds bearing interest at five per cent. Though subscriptions are sometimes asked and recorded, we shall waive such preliminaries and proceed to the essentials at once. Ten thousand dollars have been received in exchange for a bonded indebtedness representing a similar account. The usual entry in such cases is:

Cash	$10,000.00	
To First Mortgage Bonds Payable		$10,000.00

The title of the credit account is purposely made full so as

[1] See "charging off" process and "deferred" assets, in Chapter VII.

clearly to indicate its function. It has been assumed, as is very usual in such cases, that the bonds were made a first lien on the properties of the company. The entry does not involve any Interest Account, for the same reason that the entries for an interest-bearing and a non-interest-bearing note do not differ from each other. An appropriate Interest Account will be charged when interest is paid.

(*b*) Underwriters are frequently called upon to place or "float" such bonds as are being discussed. If the underwriters charged $500.00 for selling these bonds, turning over to the company only the net proceeds, $9,500.00, entry (*a*), above, will be either:

(1)	Cash	$9,500.00	
	Underwriting Expenses	500.00	
	To First Mortgage Bonds Payable		$10,000.00
or (2)	Cash	$9,500.00	
	Organization Expenses	500.00	
	To First Mortgage Bonds Payable		$10,000.00

Either "Underwriting Expenses" or "Organization Expenses" may be employed, and these accounts are handled exactly as the "Discount on Stock" Account, discussed on page 132.

(*c*) If the bonds are floated at 92 the entry, assuming no underwriting expenses, is:

Cash	$9,200.00	
Discount on Bonds	800.00	
To First Mortgage Bonds Payable		$10,000.00

(*d*) Sometimes, as an inducement to buy bonds, stock is offered as a bonus or gift. If each purchaser of a $1,000.00 bond, at par, receives one share of stock the entry for the entire bond issue is essentially:

Cash	$10,000.00	
Stock Bonus	1,000.00	
To First Mortgage Bonds Payable		$10,000.00
Unsubscribed Stock		1,000.00

In this entry it has been assumed that unsubscribed stock existed, and that the bonus consisted of such stock not previously subscribed. The intermediary entries for subscriptions have been omitted purposely. The "Stock Bonus" Account should be treated exactly like "Discount on Stock" or "Organization Expenses" discussed previously in this chapter.

Closing Entries.—The net profit of a corporation is determined exactly like the net profit of any other type of organization. The distinct question which concerns us here is the distribution or apportionment of the net profit found. In a partnership, for instance, no particular question of finance is involved, for the division of profits, as we have seen, is a simple bookkeeping entry. The Capital or Personal Accounts of the partners are increased in amount, but the partners are more apt than not to leave their profits untouched, rather than to take them out Moreover, there usually exists a stipulation in the copartnership agreement limiting the amount of withdrawals. But the situation is distinctly different in corporate affairs. Were all of the profits distributed it would mean that the stockholders would actually draw out from the business the entire profits for the year. Consequently the corporation would be in no better financial position after a long period of successful operation than at its beginning.

The result of the situation just briefly outlined leads to an appreciation of the necessity of withholding or *reserving* some part of each year's profits. The subject is an important one, and to many students proves most difficult. Detailed discussion regarding it is reserved for treatment in subsequent chapters, namely, in those dealing with Profit and Loss Statements and with Reserves.

That portion of the profits which the board of directors decides shall be paid to the stockholders is called "dividends." Moreover, the shareholders are not entitled to any dividends at all, until the directors vote affirmatively on the matter. Such action on the part of the latter is termed "declaring a dividend." To illustrate, if The Rollins Trading Co. had outstanding one hundred shares of stock (100 shares at $100.00 par, each,—a capitalization of $10,000.00), and the directors decided that of the net profits for that year, amounting, to say, $1,350.00, the Company should retain $550.00, they would declare a dividend of eight per cent. The resulting entry closes the Profit and Loss Account, and carries its balance to an "Undivided Profit" Account or to a "Surplus" Account:

Profit and Loss[1]	$1,350.00	
To First Dividends Payable		$800.00
Surplus		550.00

"First Dividends Payable" denotes that the corporation in question has declared its first dividend or distribution of profits. Subsequent distributions are numbered successively.

In large corporations, the so-called Transfer Books are now closed. The Transfer Book is the auxiliary Journal, as it were, wherein are recorded transfers of stock, and

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[1] More frequently, the entire net profit is carried to Surplus Account by means of the following entry:

Profit and Loss	$1,350.00	
To Surplus		$1,350.00

Then the dividends are taken "out of Surplus" by this entry:

Surplus	$800.00	
To First Dividends Payable		$800.00

from which postings are made to the Stockholders' Ledger. Then entries are made in the Dividend Book so as to show the amount of dividends to which the different stockholders are entitled. A check for the entire amount of the declared dividends is then drawn and deposited in the name of some descriptive account. Individual checks are finally drawn against this deposit, and sent to the "stockholders of record," that is, to those who are the owners of stock, and, hence, entitled to dividends, according to the Stockholders' Ledger at the time the books are closed. The reason for the special deposit is to save the efforts of the higher officials, and to enable designated clerks to sign the many thousands of small checks which such corporations as the United States Steel Corporation or the Pennsylvania Railroad Co. have to send out a number of times each year.

The entries in the case of smaller companies, when dividends are paid, will now be shown. Essentially, they are the same for all organizations, regardless of size. At the time a check is drawn in favor of a stockholder, an entry is made on the credit side of the Cash Book, which results in debits and credits as shown by this type solution:

First Dividends Payable	$——	
To Cash		$——

When all of the dividends have been paid, in the case of The Rollins Trading Co., for instance, the effect of the separate entries is summed up in the following:

First Dividends Payable	$800.00	
To Cash		$800.00

It sometimes happens that the check mailed to a stockholder is returned, and that he cannot be located. The check is thereupon canceled and, inasmuch as the company is liable to the stockholder and is willing to pay him the amount due as soon as he is located, the following entry is made:

Cash	$——	
To Unpaid Dividends		$——

Changing to Corporations.—The opening entries thus far discussed were in relation to the establishment of new corporations. The advantages of the corporate form of organization appeal to individual proprietors and to partners, and we shall now consider the accounting features incident to the change from partnerships to corporations. The preliminary legal steps differ in no wise from those already presented, so they need not detain us. We shall study three cases:

(*a*) A partnership converted to a corporation without increase of capital.

(*b*) A similar conversion with an increase in capitalization.

(*c*) A third change with provisions made so to increase the capitalization as to permit the sale of some of the authorized issue to outsiders.

For the purposes of illustration we shall take the firm of Browne & Towne, whose business condition on July 1, 1913, the date of the incorporation of the Browne-Towne Co., is shown by the following:

Balance Sheet of Browne & Towne
as of July 1, 1913

Cash	$2,600.00	Notes Payable	$5,700.00
Accounts Receivable	7,900.00	Accounts Payable	2,700.00
Merchandise	5,200.00		
Fixtures	1,800.00		$8,400.00
Horses and Wagons	900.00	B. Browne, Capital	6,000.00
		T. Towne, Capital	4,000.00
	$18,400.00		$18,400.00

Proposition 1.—Browne and Towne incorporate their business with an authorized capitalization of $10,000.00, divided into shares of $100.00 each. We are required to make the necessary changes under either of two conditions: (*a*) If the old books are to be continued, (*b*) If a new set of books is to be employed.

Case (*a*) Inasmuch as the assets and liabilities of the old firm are to become the property of the new company upon the payment by the latter to the members of the former of $10,000 in stock, there is no need of changing the accounts representing the assets and the liabilities. But the Capital Accounts of Messrs. Browne and Towne cannot remain, because the accounts of stockholders do not appear in the general books of corporations, and the Capital Stock Account must be added. The following entry will close the partners' accounts and open the one with the stock:

B. Browne, Capital	$6,000.00	
T. Towne, Capital	4,000.00	
To Capital Stock		$10,000.00

For the 100 shares of the capital stock of the Browne-Towne Co., accepted in full payment of all our rights and interest in the firm of Browne and Towne, and distributed as follows:

B. Browne, 60 shares, to close his account.
T. Towne, 40 shares, to close his account.

Case (*b*) Before opening the new set of books it is necessary to close the old ones. It is not sufficient to open the new books; it is also necessary to leave the old ones in good condition. This is so because the bookkeeping history of a business may be regarded as a unit, and the records of old transactions are often very important. The Journal entries shown on the following page will accomplish the desired purpose.

Browne-Towne Co.	18,400 00	
To Cash		2,600 00
Accounts Receivable		7,900 00
Merchandise		5,200 00
Fixtures		1,800 00
Horses and Wagons		900 00
To close the assets on the books of Browne & Towne, same having been transferred to the corporation, Browne-Towne Co., as per contract.		
Notes Payable	5,700 00	
Accounts Payable	2,700 00	
To Browne-Towne Co.		8,400 00
To close the liabilities on the books of Browne & Towne, same having been assumed by the corporation of Browne-Towne Co., as per contract.		
Browne-Towne Co. Stock	10,000 00	
To Browne-Towne Co.		10,000 00
100 shares of stock, par value \$100.00 each, received in full payment of our business, transferred to Browne-Towne Co.		
B. Browne, Capital	6,000 00	
T. Towne, Capital	4,000 00	
To Browne-Towne Co. Stock		10,000 00
Distribution of stock to Messrs. Browne & Towne, in full of their interests in the firm: 60 shares to B. Browne 40 shares to T. Towne		

It is now necessary to open a new set of books. We must consider that Messrs. Browne & Towne have subscribed to the capital stock of the Browne-Towne Co., and that they have paid their subscriptions by transferring their business. The detailed entries are shown on the following page.

(The usual preliminary explanation, similar to the one on page 123, is omitted.)

July 1, 1913

Subscriptions	$10,000.00	
To Capital Stock		$10,000.00
B. Browne, 60 shares		
T. Towne, 40 shares		

1

Cash	$2,600.00	
Accounts Receivable	7,900.00	
Merchandise	5,200.00	
Fixtures	1,800.00	
Horses and Wagons	900.00	
To Notes Payable		5,700.00
Accounts Payable		2,700.00
Subscriptions		10,000.00
Accepted the assets of Browne & Towne, and assumed their liabilities, in full payment of their subscriptions to 100 shares of the capital stock of this Company, as per Minute Book, page		

The foregoing entry placed all the assets acquired and the liabilities assumed upon the books of the corporation. Subscriptions Account has been canceled, so that the only account other than those listed in this last entry is Capital Stock Account with a credit balance of $10,000.00. It should be noticed that the new books show exactly the same balances as the old did in case (*a*), after changing them to corporation books.

Proposition 2.—The capitalization is placed at $20,000.00, all of which is issued to Messrs. Browne & Towne, for their interest in the old firm. Without repeating the details involved in the solution of the first proposition, and equally applicable to the present one, we shall consider, as before, two cases: (*a*) The change if the old books are to be employed, (*b*) The opening of a new set.

Case (*a*) Here the corporation pays $20,000.00 in stock for a net capital of $10,000.00. The difference of $10,000.00, representing the excess of purchase price over replacement value, is, as we saw in the last chapter, goodwill. This goodwill of $10,000.00, though a real asset to the corporation which acquired it for value, is a profit to the old firm. And like all profits it must be divided between the partners. Though the Capital Accounts of Messrs. Browne & Towne are unequal, in the absence of a specific agreement to the contrary, the profit must be divided equally. The entries to change the old books, without the usual preliminaries, are:

Goodwill	$10,000.00	
To B. Browne, Capital		$5,000.00
T. Towne, Capital		5,000.00
Excess valuation placed upon our business by the purchasers, the Browne-Towne Co., divided equally among the members of the firm.		
B. Browne, Capital	$11,000.00	
T. Towne, Capital	9,000.00	
To Capital Stock		20,000.00
200 shares of capital stock of the Browne-Towne Co., par value $100.00 each, in full for the rights and interests of Messrs. Browne & Towne, divided as follows: B. Browne, 110 shares, to close his account. T. Towne, 90 shares, to close his account.		

Case (*b*) It will not be necessary to go into lengthy explanations regarding the following entries by means of which the old books will be closed, because they are similar to the corresponding case of the first proposition:

Goodwill	$10,000.00	
To B. Browne, Capital		$5,000.00
T. Towne, Capital		5,000.00
Browne-Towne Co	28,400.00	
To Cash		2,600.00
Accounts Receivable		7,900.00
Merchandise		5,200.00
Fixtures		1,800.00
Horses and Wagons		900.00
Goodwill		10,000.00

(Notice that goodwill is included as one of the assets acquired by the new company.)

Notes Payable	$5,700.00	
Accounts Payable	2,700.00	
To Browne-Towne Co		$8,400.00
Browne-Towne Co. Stock	20,000.00	
To Browne-Towne Co		20,000.00
B. Browne, Capital	11,000.00	
T. Towne, Capital	9,000.00	
To Browne-Towne Co. Stock		20,000.00

It was deemed quite unnecessary to supply the explanatory remarks to the above Journal entries, because they are identical with those previously given in similar premises. We must now open the new books. Though it is scarcely necessary to show the opening entries, because they are practically the same as those with which the student is already familiar, they are herewith presented, but without explanation or comment:

Subscriptions	$20,000.00	
To Capital Stock		$20,000.00
Cash	2,600.00	
Accounts Receivable	7,900.00	
Merchandise	5,200.00	
Fixtures	1,800.00	
Horses and Wagons	900.00	
Goodwill	10,000.00	
To Notes Payable		5,700.00
Accounts Payable		2,700.00
Subscriptions		20,000.00

Proposition 3.—The authorized capitalization is placed at $25,000.00, of which $20,000.00 is given to the old firm. Of the balance $3,200.00 is subscribed by outsiders at par. We shall consider the steps necessary to open a new set of books, assuming that the question of continuing the old ones does not arise. The problem calls for the closing of the old books, and the opening of a new set. We proceed at once to open the new set, as the student needs no further help in closing the old ones, because the work is

exactly the same as the second proposition. The entries to open the new books, with full Journal explanations, except the preliminary statement regarding organization, follow:

JULY 1, 1913

Subscriptions	23,200.00	
Unsubscribed Stock	1,800.00	
To Capital Stock		25,000.00
Browne & Towne, 200 shares at par D. Downe, 11 shares at par F. Fowne, 21 shares at par		
1		
Cash	2,600.00	
Accounts Receivable	7,900.00	
Merchandise	5,200.00	
Fixtures	1,800.00	
Horses and Wagons	900.00	
Goodwill	10,000.00	
To Notes Payable		5,700.00
Accounts Payable		2,700.00
Subscriptions		20,000.00
Accepted the assets of Browne & Towne, together with their goodwill, and assumed their liabilities, in full payment of their subscriptions to 200 shares of the capital stock of this Company, as per action of the Board of Directors, Minute Book, page....		

And if Mr. Downe pays his subscription on the 10th of July, one-half in cash and the balance by his thirty-day interest-bearing note, the following entry is made:

10

Cash	$550.00	
Notes Receivable	550.00	
To Subscriptions......................		$1,100.00

The student is advised to check up the following Balance-Sheet which is now taken:

Balance Sheet of the Browne-Towne Co.

AS OF JULY 10, 1913

Cash	$3,150.00	Notes Payable	$5,700.00
Notes Receivable	550.00	Accounts Payable	2,700.00
Accounts Receivable	7,900.00		
Merchandise	5,200.00		$8,400.00
Fixtures	1,800.00	Cap. Stock. $25,000.00	
Horses and Wagons	900.00	Unsubscribed 1,800.00	
Subscriptions	2,100.00		
Goodwill	10,000.00	Outstanding Stock	23,200.00
	$31,600.00		$31,600.00

Consolidation.—As a final problem in corporation accounting, we shall explain the steps involved when two or more organizations combine to form a larger company. We shall not go into the legal requirements which precede the formation of the merger.

The problem: The Consolidated Trading Company is organized under the laws of the State of New York, with an authorized capitalization of $100,000.00, divided into 500 shares of common stock and 500 shares of preferred stock, each of a par value of $100.00. The Original Trading Co. subscribes to 300 shares, 150 shares of each kind of stock, payment to be made by transferring the business and goodwill of the Original Trading Co. to the Consolidated Trading Co. in full payment of the subscription. Messrs. Simple & Bright agree to turn over their business, including its goodwill, for 200 shares of preferred stock and 150 shares of common stock. Others subscribe for 100 shares of preferred stock at par and for 100 shares of common stock at par. Required (A) The closing entries for the Original Trading Co.; (B) the closing entries for Simple & Bright; (C) the opening entries for the Consolidated Trading Co.; (D) the Balance Sheet of the Consolidated Trading Co. after making the entries for the transactions given.

The following are the Balance Sheets submitted to and accepted by the Consolidated Trading Co., as correct exhibits of the respective vendors or sellers at the time when the concerns were acquired:

Balance Sheet of the Original Trading Co.

(DATE)

Cash	$5,800.00	Notes Payable	$15,000.00
Notes Receivable	20,000.00	Accounts Payable	8,000.00
Accounts Receivable	16,300.00	Capital Stock	20,000.00
Merchandise	4,500.00	Surplus	5,000.00
Fixtures	1,400.00		
	$48,000.00		$48,000.00

Balance Sheet of Simple & Bright

(DATE)

Cash	$6,400.00	Accounts Payable	$4,000.00
Accounts Receivable	23,600.00	Mortgage Payable	10,000.00
Merchandise	8,000.00	S. Simple, Capital	15,000.00
Fixtures	2,000.00	B. Bright, Capital	12,000.00
S. Simple, Personal	1,000.00		
	$41,000.00		$41,000.00

(A) To close the books of the Original Trading Co.:

(1) The difference between the par value of the 300 shares of stock received, $30,000.00, and the existing capital as per the Balance Sheet, total assets ($48,000.00) less total liabilities ($23,000.00), or $25,000 (capital stock plus surplus), is $5,000.00. This $5,000.00 represents the value placed on the goodwill, a profit to accrue to the benefit of the stockholders. The first entry is to place the goodwill on the books:

Goodwill	$5,000.00	
To Surplus		$5,000.00

Excess valuation placed upon this company by the vendees, The Consolidated Trading Co.

The credit to Surplus Account increases the old balance to $10,000.00, so that the stockholders will be entitled to a share of $30,000,—capital stock plus surplus—upon distribution.

(2) The second entry transfers the existing assets, including goodwill, to vendees, and closes the asset accounts:

The Consolidated Trading Co.	$53,000.00	
To Cash		$5,800.00
Notes Receivable		20,000.00
Accounts Receivable		16,300.00
Merchandise		4,500.00
Fixtures		1,400.00
Goodwill		5,000.00
To transfer the assets of this Company to the Consolidated Trading Co., as per agreement dated ...., and as per action of the Board of Directors, see Minute Book, page		

(3) The effect of the next entry will be to close the accounts showing liabilities, as they have been assumed by the vendee:

Notes Payable	$15,000.00	
Accounts Payable	8,000.00	
To the Consolidated Trading Co.		$23,000.00
Assumption of the existing liabilities of this Company by the Consolidated Trading Co., as per agreement dated ...., and as per action of the Board of Directors, see Minute Book, page		

(4) Now that the vendee has been charged with the sum of assets acquired ($53,000.00), and credited with the sum of the liabilities assumed ($23,000.00), the debit balance of $30,000.00 is canceled by the delivery, as per agreement, of 150 shares of preferred stock and of 150 shares of common stock. The entry is:

The Consolidated Trading Co. Preferred Stock	$15,000.00	
The Consolidated Trading Co. Common Stock	15,000.00	
To the Consolidated Trading Company		$30,000.00

Received in full payment as per agreement,
150 shares of preferred stock, par value $100.00
150 shares of common stock, par value $100.00

(5) The final step consists in distributing the stock acquired among the stockholders. This problem consists of dividing 150 shares of common stock and 150 shares of preferred stock among 200 stockholders, or among 200 shares of stock, to be technically correct, $\frac{150}{200}$ or ¾ of a share of each is the proper ratio. The last entry closes all the accounts still open, because the distribution of 300 shares of stock (300 shares at $100.00, each, or $30,000.00) cancels the capital stock account of $20,000.00 and the surplus account of $10,000.00:[1]

Capital Stock	$20,000.00	
Surplus	10,000.00	
To The Consolidated Trading Co. Preferred Stock		$15,000.00
The Consolidated Trading Co. Common Stock		15,000.00

Distribution of
150 shares of preferred stock of The Consolidated Trading Co.
150 shares of common stock of The Consolidated Trading Co.

To our stockholders of record, upon surrender of their stock in this Company, in the following manner: for each share of our stock, ¾ of a share, each, of the preferred and the common stock of The Consolidated Trading Co.

(B) To close the books of Simple & Bright:

(1) The first step consists in transferring the Personal Account of S. Simple to the corresponding Capital Account. This is done because stockholders do not have drawing accounts in the corporations in which they own

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[1] A liquidating committee often takes charge of such dissolutions. The intermediate "Realization and Liquidation" Account which should be employed will be found described in Chapter XII.

stock, and so the debit balance in question is not accepted as an asset by The Consolidated Trading Co. The entry is a very simple one:

S. Simple, Capital	$1,000.00	
To S. Simple, Personal		$1,000.00
To close the latter account into the former.		

(2) The next entry results in the distribution of the goodwill created by the sale of the business to the Consolidated Trading Co. It amounts to $9,000.00, the difference between the price paid by the Consolidated Trading Co. ($35,000.00) and the net capital of the firm ($26,000.00).

As we have already learned in the chapter dealing with partnership, this goodwill must be regarded as a business profit, which, in the absence of a specific agreement, must be divided equally among the partners. The following entry accomplishes the desired purpose:

Goodwill	$9,000.00	
To S. Simple, Capital		$4,500.00
B. Bright, Capital		4,500.00

(3) We must now transfer all of the firm's assets, including the newly created goodwill, to The Consolidated Trading Co. Some accountants prefer to employ the title, "vendees," for the adjustment account, rather than the name of the concern acquiring title, but as nothing is gained by this arrangement, we shall charge The Consolidated Trading Co. with the assets turned over:

The Consolidated Trading Co	$49,000.00	
To Cash		$6,400.00
Accounts Receivable		23,600.00
Merchandise		8,000.00
Fixtures		2,000.00
Goodwill		9,000.00
Transfer of all our assets, including goodwill, in accordance with agreement between The Consolidated Trading Co. and ourselves, dated		

(4) The following entry is made because the vendees

have assumed the outstanding liabilities of the partnership at the same time that they have taken over its assets:

Accounts Payable..................	$4,000.00	
Mortgage Payable..................	10,000.00	
To The Consolidated Trading Co...		$14,000.00
Assumption of our liabilities by The Consolidated Trading Co. in accordance with agreement dated		

(5) The Consolidated Trading Co. is now charged with $49,000.00 and credited with $14,000.00. Accordingly, they owe Messrs. Simple and Bright the sum of $35,000.00. The Company pays in full by giving 200 shares of its preferred stock and 150 shares of its common stock, each of a par value of $100.00. The following entry will close the Company's account and open an account with its stock:

The Consolidated Trading Co. Preferred Stock.....................	$20,000.00	
The Consolidated Trading Co. Common Stock.......................	15,000.00	
To The Consolidated Trading Company....................		$35,000.00
Received in full payment, the following stock of The Consolidated Trading Co., as per agreement dated.........		
200 shares preferred, par value $100.00		
150 shares common, par value $100.00		

(6) The final step in the process of closing Messrs. Simple & Bright's books consists in the equitable distribution of the stock, the same being payment for the interest of S. Simple and B. Bright, respectively, in the business transferred to the vendees. The entry to close the remaining accounts is:

S. Simple, Capital..................	$18,500.00	
B. Bright, Capital..................	16,500.00	
To The Consolidated Trading Co. Preferred Stock................		$20,000.00
The Consolidated Trading Co. Common Stock................		15,000.00

Distribution of the stock of The Consolidated Trading Co. as follows:
- S. Simple, 105 5/7 shares preferred and 79 2/7 shares common
- B. Bright, 94 2/7 shares preferred and 70 5/7 shares common

(C) To open the books of The Consolidated Trading Co.:

(1) We shall disregard the various legal requirements, just as we did in cases (A) and (B), assuming that they have all been met. The first entry is to show the authorized issue, together with the preliminary subscriptions:

Subscriptions to Preferred Capital Stock	$45,000.00	
Subscriptions to Common Capital Stock	40,000.00	
Unsubscribed Preferred Capital Stock.	5,000.00	
Unsubscribed Common Capital Stock.	10,000.00	
To Preferred Capital Stock		$50,000.00
Common Capital Stock		50,000.00

Subscribers:
- Original Trading Co., 150 shares preferred, 150 shares common
- Simple & Bright, 200 shares preferred, 150 shares common
- "Others," 100 shares preferred, 100 shares common

(2) It is now necessary to show the payment or cancellation of subscriptions. The only payments given are those by the two concerns whose books were previously closed. In each case, the difference between the assets acquired and the liabilities assumed will exactly correspond to the amount of subscriptions. It should be noticed that instead of listing the assets and liabilities separately, they are grouped, in each instance for the sake of compactness and simplicity. Subsequently, in 3 (*a*) and 3 (*b*), they are analyzed so as to get the separate items upon the books.

(*a*) Entry to cancel subscription of Original Trading Co.:

Sundry Assets of The Original Trading Co.	$53,000.00	
To Sundry Liabilities of The Original Trading Co.		23,000.00
Subscriptions to Preferred Capital Stock		15,000.00
Subscriptions to Common Capital Stock		15,000.00
The business of The Original Trading Co. acquired as per agreement dated .... See Minute Book, page		

(*b*) Entry to cancel subscriptions of Simple & Bright:

Sundry Assets of Simple & Bright	$49,000.00	
To Sundry Liabilities of Simple & Bright		$14,000.00
Subscriptions to Preferred Capital Stock		20,000.00
Subscriptions to Common Capital Stock		15,000.00
The business of Simple & Bright acquired as per agreement dated........ See Minute Book, page..........		

(3) The last step required to complete the opening of the books is to analyze the composite "Sundry" Accounts into their elements.

(*a*) Entry to list assets and liabilities of The Original Trading Co. and to close the Sundry Accounts:

Cash	$5,800.00	
Notes Receivable	20,000.00	
Accounts Receivable	16,300.00	
Merchandise	4,500.00	
Fixtures	1,400.00	
Goodwill	5,000.00	
To Sundry Assets of The Original Trading Co.		$53,000.00
To close the latter account and to enter the assets acquired from The Original Trading Co.		

Sundry Liabilities of The Original Trading Co.	$23,000.00	
To Notes Payable		$15,000.00
Accounts Payable		8,000.00
To close the former account and to enter the liabilities of The Original Trading Co., assumed by us.		

(*b*) Entry to list assets and liabilities of Simple & Bright, and to close the remaining Sundry accounts:

Cash	$6,400.00	
Accounts Receivable	23,600.00	
Merchandise	8,000.00	
Fixtures	2,000.00	
Goodwill	9,000.00	
To Sundry Assets of Simple & Bright.		$49,000.00
To close the latter account and to enter the assets acquired from Simple & Bright.		
Sundry Liabilities of Simple & Bright	$14,000.00	
To Accounts Payable		$4,000.00
Mortgage Payable		10,000.00
To close the former account and to enter the liabilities of Simple & Bright, assumed by us.		

(D) The Balance Sheet of the Consolidated Trading Co. is now shown:

Balance Sheet of the Consolidated Trading Company

(Date)

Assets		Liabilities		
Cash	$12,200.00	Notes Payable		$15,000.00
Notes Receivable	20,000.00	Accts. Payable		12,000.00
Accts. Receivable	39,900.00	Mortgage Payable		10,000.00
Subs. to Pfd. Cap. Stock	10,000.00			$37,000.00
Subs. to Com. Cap. Stock	10,000.00	Capital		
Merchandise	12,500.00	Pfd. Stk. Auth.	$50,000.00	
Fixtures	3,400.00	Unsubsbd.	5,000.00	
Goodwill	14,000.00			45,000.00
		Com. Stk. Auth.	$50,000.00	
		Unsubsbd.	10,000.00	
				40,000.00
	$122,000.00			$122,000.00

It is usual to draw up such a Balance Sheet after opening a set of books for two reasons: (*a*) To prove that the books are in balance, and (*b*) to disclose the condition of the business at commencement. The Balance Sheet presented on page 153 was obtained by (1) opening the Ledger accounts indicated by the Journal entries, and (2) preparing a Trial Balance from these Ledger accounts. It is of course possible, though not desirable, except at examinations where speed is the essential element, to omit steps (1) and (2).

Summary

Unlike a partnership, a corporation must obtain official sanction to organize. The application is addressed to a designated state officer, who, if he approves of it, issues a charter or a certificate of incorporation. There are various reasons justifying the modern popularity of the corporate form of organization. Some of these have been referred to; these, together with other features, will be found in the following summary:

PARTNERSHIPS AND CORPORATIONS COMPARED

Topic	*In Partnerships*	*In Corporations*
Membership	Two or more competent parties.	At least three competent parties, with residence specification, etc.
Establishment	Voluntary agreement.	Must obtain official sanction.
Capital	No limitation.	Usually a minimum limit.
Changes in Capital	No legal restrictions.	Only by express permission from state officials.
Books kept	No stipulation in most states.	Some books specifically ordered to be kept.
Reports	None.	In some states annual reports. The U. S. Corporation Tax Act, of August 5, 1909, requires annual reports for purposes of taxation, etc.

Partnerships and Corporations Compared—(*continued*)

Topic	*In Partnerships*	*In Corporations*
Liability	Unlimited (practically)	Limited (usually) by amount of fully paid subscriptions, except in institutions like banks where there is a double liability.
Distribution of profits	As per agreement, or, in absence of agreement, equally.	Only upon action of board of directors who declare dividends.
Dissolution	Voluntarily or by agreement. (Also death or insolvency of a partner.)	Upon vote of stockholders, after obtaining permission from state.

In the accounting proper, the student has been introduced to a number of features not employed previously. Auxiliary books to record subscriptions, transfers, installments and dividends have been discussed. New accounts, also, have been employed. Capital Stock Account has been found to take the place of the Proprietor's Accounts with which we had become familiar. Unsubscribed Stock and Treasury Stock were two of the new terms involved. And, finally, the problem of the distribution of profits was found to involve questions not previously before us.

EXERCISES

Group One

1. What is a corporation?
2. Differentiate between common stock and preferred stock.
3. What is the relation between the Capital Stock Account of the General Ledger and the Stockholders' Ledger or Stock Ledger?
4. Differentiate between Unsubscribed Stock, Unissued Stock, and Treasury Stock.

5. What are meant by dividends? Who is entitled to dividends? What is the difference between the apportionment of profits among the members of a firm and the voting of dividends by the board of directors of a corporation?
6. Mention three important privileges enjoyed by a corporation which are denied partnerships.
7. Mention two restrictive features applied to corporations which are absent in the case of partnerships.
8. Outline the steps necessary to incorporate an industrial concern in your state.

Group Two

1. A corporation is organized under the laws of the state of New York, with an authorized capitalization of $1,000,000.00 divided into shares of the par value of $100.00.
   (*a*) Formulate entries, if all the stock is subscribed for and paid in cash.
   (*b*) If all is subscribed for, and the subscription agreement calls for payment in four equal quarterly installments, and the same are paid accordingly.
   (*c*) If the stock is all subscribed for at $90.00 per share.
   (*d*) Combine (*c*) and (*a*) above.
   (*e*) It is now found that the company has not sufficient working capital, so the stockholders agree to make a *pro rata* donation to the treasury of the company of 5 per cent of their individual holdings.
   (*f*) One-half of the stock contributed is sold at par; the balance at $90.00.
   (*g*) Instead of (*a*), if only 80 per cent. had been subscribed for?

2. What would be the entry if the corporation referred to in question 1 issued first mortgage bonds, a first lien on all their property, to the amount of $50,000.00 and floated them at par?
3. Assuming that the underwriting expenses had amounted to $5,000.00, what would be the entry?
4. If the capital stock were to be increased to $2,000,000.00, what entry, if any, would be made at the time of authorization? At the time of subscription?
5. If, in (*a*) of question 1, the authorized capitalization had been for 25 per cent. preferred stock and 75 per cent. common stock, what would be the entry?
6. The New Manufacturing Co. is organized under the laws of the State of New York, with an authorized capital of $1,000,000.00 divided into shares of $100.00, each. The board of directors has regularly decided to issue $450,000.00 of stock for the business of A. and F., and $500,000.00 for that of the Old Manufacturing Co., a corporation organized under New York laws. Following is the accepted Balance Sheet of A. & F. at the date of purchase:

   Assets: cash, $5,000.00; notes receivable, $210,000.00; accounts receivable, $140,000.00; plant and machinery, $200,000.00; A.'s Drawing Account, $1,000.00; liabilities: notes payable, $100,000.00; accounts payable, $56,000.00; A.'s Capital Account, $250,000.00; F.'s Capital Account, $150,000.

The accepted Balance Sheet of the Old Manufacturing Co. is as follows:

Assets: cash, $50,000.00; notes receivable, $100,000.00; accounts receivable, $200,000.00; plant and machinery, $150,000.00; goodwill, $100,000.00; liabilities: notes payable, $50,000.00;

mortgage payable, $100,000.00; capital stock, $450,000.00.

(*a*) Make closing entries in books of A. & F.

(*b*) Make opening entries in books of New Manufacturing Co.

(*c*) Prepare Balance Sheet of New Manufacturing Co.

7. A corporation has an authorized capital of $100,000.00, of which 80% has been issued. The Profit and Loss Account shows a net profit of $18,000.00. The Board of Directors declares a dividend of 10%.

   (*a*) Show entries for the declaration of dividends and to close the Profit and Loss Account.

   (*b*) Show entry when L. M. Rich, the owner of sixteen shares of stock, is paid his dividend by check.

8. Suppose that the partnership of F. and G. (example 8, page 112) were changed to a corporation under the laws of the State of New York, on February 1, 1913, with an authorized capital of $50,000.00, divided into shares of $100.00 each.

   (*a*) If all of the stock had been distributed to Messrs. F. & G., show the entries to close the partnership books and to open the corporation books.

   (*b*) If only $40,000.00 of stock had been given to Messrs. F. and G., show the corresponding entries in the old and in the new books.

   (*c*) If only $30,000.00 of stock had been so given to Messrs. F. and G., required, the corresponding entries.

9. L. E. Smythe (example 1, page 83), incorporates a company with a Capital Stock of $10,000.00, of which he takes $8,000.00 in full payment of his business. He secures outside subscriptions to $1,-

500.00 of the remaining stock, and the same is paid in cash.

(*a*) Required, the entries to close the old books.

(*b*) Required, the entries to open the new books. (Introduce modern labor-saving devices.)

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CHAPTER VII

BALANCE SHEETS AND TRADING AND PROFIT AND LOSS STATEMENTS

A.—The Balance Sheet

We know that, after completing posting, a Trial Balance is taken so as to prove the existence of an equilibrium between debits and credits. We know, too, that this abstract of the balances of all the accounts is not a conclusive test of posting correctness, but nevertheless it is employed as a sort of negative check. It is a negative check in the sense that, in the absence of the equality shown by a Trial Balance, an error is known to exist. But, at best, the Trial Balance is only a basis for more important business Statements. Among these final Statements, we shall select the one known as the Balance Sheet for immediate discussion.

Bookkeepers are familiar with the Balance Sheet as the Statement of Resources and Liabilities or as the Statement of Assets and Liabilities. Let us now see just what the Balance Sheet really is. The reader has already been told that it consists of a list of all the assets of the business arranged in one column and that this list is set opposite another column containing all the liabilities of the business and the proprietorship balances. The total of the first column is exactly equal to the total of the second, because assets minus liabilities give capital, while capital is equivalent to the proprietorship balances, as we shall see again later. The question now before us is, why should the statement or exhibit we are discussing be called a Balance Sheet? We shall now proceed to find an answer.

It is customary to close all accounts showing either a profit or a loss,—the nominal accounts,—into a summary account called either Loss and Gain or Profit and Loss. This Profit and Loss Account contains, in various arrangements as we shall see elsewhere, the expenses and losses on the debit side and the gains and proceeds on the other. The final balance is called net profit. We have already seen that this net profit is eventually distributed, so that the Profit and Loss account is itself closed. At this time no Nominal Accounts are open on the books. Accordingly, only Real and Personal Accounts exist, or Real, Personal, and, as some would say, Capital or Proprietary Accounts. If a Trial Balance were to be taken at this point, the books would be in balance. A proper arrangement of the balances would result in the establishment of a *Balance Sheet.* Thus a definition of the Balance Sheet might be: "A Trial Balance of all the balances of all the accounts after closing the books." With some slight modifications incorporated, the definition would be an acceptable one:—A systematic arrangement of the balances of a double entry set of books immediately after closing the books. The reason for the inclusion of the term *systematic* will soon be made clear.

We must also clearly distinguish between a Statement of Assets and Liabilities and a Balance Sheet. And this is so notwithstanding the fact that it is impossible to tell one from the other when presented to us. What is the real difference then? The statement may be prepared from Single Entry books as well as from Double Entry ones; in fact, it may be prepared from sources quite outside the books entirely. All that is required is the possibility that the information necessary to establish the items of assets and liabilities be available *somewhere.* The Balance Sheet, on the other hand, is prepared from Double Entry books only, and from such books when "closed" and "in balance.'' As was stated in an earlier paragraph, it is compiled from such books after the Nominal Accounts have been closed, by arranging the remaining balances, which in their entirety reveal the condition of the business at a particular moment of time, in a systematic way. More about this systematic way shall be presented at once.

Arrangement of the Balance Sheet.—A simple example will serve as an introduction to the subject matter of the present division. If you were invited to become a partner in the business of either Mr. Black or Mr. Brown, upon the payment of $5,000.00, and your decision was to be based entirely upon their respective Balance Sheets, how could you choose? The Balance Sheets follow:

Balance Sheet of B. B. Black

APRIL 1, 1913

Real Estate	$2,500.00	Notes Payable	$4,500.00
Cash	1,200.00	Accounts Payable	8,200.00
Accounts Receivable	2,000.00	B. B. Black, Cap	5,000.00
Merchandise	3,000.00		
Machinery	9,000.00		
	$17,700.00		$17,700.00

Balance Sheet of C. C. Brown

APRIL 1, 1913

Accounts Receivable	$4,300.00	Notes Payable	$3,000.00
Cash	6,200.00	Accounts Payable	11,500.00
Merchandise	3,000.00	Mtge. Payable (1915)	5,000.00
Notes Receivable	5,000.00	C. C. Brown, Cap	5,000.00
Machinery	6,000.00		
	$24,500.00		$24,500.00

Upon the assumption that the items included in each of the Balance Sheets are correct, it is readily seen that the net capital of each business is $5,000.00. Thus far you are not in a position to choose. But a rearrangement of the items, so as to reveal what assets are available to meet liabilities soon due, may throw some needed light upon the problem. Calling those assets which are soon or currently due current assets, and the corresponding liabilities current liabilities, the Balance Sheets, when recast, become:

Balance Sheet of B. B. Black

APRIL 1, 1913

CURRENT ASSETS:		CURRENT LIABILITIES:	
Cash	$1,200.00	Notes Payable	$4,500.00
Accounts Receivable	2,000.00	Accounts Payable	8,200.00
	$3,200.00		$12,700.00
OTHER ASSETS:			
Merchandise	3,000.00	B. B. Black, Cap	5,000.00
Real Estate	2,500.00		
Machinery	9,000.00		
	$17,700.00		$17,700.00

Balance Sheet of C. C. Brown

APRIL 1, 1913

CU RENT ASSETS:		CURRENT LIABILITIES	
Cash	$6,200.00	Notes Payable	$3,00 .00
Notes Receivable	5,000.00	Accounts Payable	11,500.00
Accounts Receivable	4,300.00		
	$15,500.00		$14,500.00
OTHER ASSETS.		OTHER LIABILITIES:	
Merchandise	3,000.00	Mtge. Payable (1915)	5,000.00
Machinery	6,000.00		
			$19,500.00
		C. C. Brown, Cap	5,000.00
	$24,500.00		$24,500.00

We can see now that Mr. Black has only $3,200.00 with which to meet liabilities aggregating $12,700.00. If you were to invest $5,000.00 in his business, there still would be not nearly enough in quick funds to meet the immediate liabilities. It is of course out of the question to expect the real estate or the machinery to help pay off the debts, because, were these assets disposed of, the business would have to be discontinued.

Let us now inspect Mr. Brown's Balance Sheet in a similar way. His current assets could be employed to cancel his current liabilities, leaving a working balance of $1,000.00. Your investment of $5,000.00 would increase this balance to $6,000.00, a very healthy condition for such a small firm.

Many other questions would have to be answered before we could give an absolutely correct answer, but we have seen enough to arouse some doubt as to the financial soundness of Mr. Black's business. On the other hand, though an examination of the Final Statements should be made to show whether the business is running on a down grade or on an up grade, and though other lines of inquiry to be presented in the chapter on auditing are in order, we feel fairly safe in concluding that Mr. Brown's business is the better proposition of the two. Obviously we are not in a position to give an unqualified opinion.

We thus see that the function of a modern Balance Sheet is not alone to contrast the total of the assets with the total of the liabilities so as to show the amount of capital, but also to segregate the various items so as to give a maximum of information regarding the condition of a business. In the furtherance of this aim, assets and liabilities are further subdivided. We shall now proceed to a somewhat detailed discussion of the arrangement of items in a modern Balance Sheet.

With the first division we are already familiar. On the asset side, the items are referred to as current, quick, liquid or immediate assets. Correspondingly, the first group of liabilities is known as current, quick, liquid or immediate liabilities. The assets are usually arranged in the time order of their convertibility into cash, namely, cash, notes receivable, accounts receivable. The liabilities are similarly arranged in the order of their maturity, namely, notes payable, accounts payable.

The next group of assets is referred to as deferred assets or deferred charges. In elementary bookkeeping they are known as expense inventories. They consist of expense items not yet consumed or used up. For example, if a plant has been insured at the beginning of the year for a period of three years, the Balance Sheet at the end of the first year should show two-thirds of the premium as a deferred asset. Prepaid rent and advertising paid in advance are other illustrations.

Deferred liabilities, the second group of liability items, correspond to the assets just discussed. In general, they consist of expense items incurred, but not paid because not yet due. For instance, the Balance Sheet on December 31st should include among the deferred liabilities two months' interest on a mortgage bearing semi-annual interest, payable May 1st and November 1st. Similarly, such items as wages earned but not yet due, taxes estimated because no bill is rendered until, say, February, and other such items, should be included under the caption in question.

The third group of assets, to which there are no corresponding liabilities, is called trade assets. This division includes such items as merchandise ready for sale, goods in process, and raw materials.

Fixed assets and fixed liabilities are the fourth and third groups, respectively, which correspond to each other. Fixed assets, sometimes called permanent or passive assets, consist of such items as machinery, tools, and real estate employed for business purposes. Fixed liabilities are debts which the business will not be called upon to pay for a long time. The stock examples are long term bonds and mortgages.

Both the definitions and the arrangement described are subject to criticism. For instance, there are no such things as fixed and permanent properties. As Professor Hatfield and others well point out, the forces of nature are continually at work to prove the lack of permanence of all earthly things. The terminology employed is an attempt to point out the difference between properties acquired for long use and those which constantly change,—the "circulating" assets. In an analogous way, there is detected a distinct difference between the circulating liabilities and the fixed ones.

The arrangement described is weak when function or purpose is the sole test. This is clearly seen when we consider such items as merchandise ready for sale. James G. Cannon, an authority on bank credit departments, is justified in including this item among the current assets on the ground that it represents property often more easily and quickly convertible into cash than accounts receivable. In a similar way we might sometimes criticise the inclusion of bonds payable in less than a year among the fixed liabilities. The important thing for the student to remember is that our subject is a growing one, that accountants adapt their reports to the needs of a given situation, and that as yet there is no finality of form. And though lack of uniformity may be embarrassing to the beginner, at the same time it should be a stimulant, for it holds out to him the opportunity of aiding in the improvement and development of a field worthy of one's best efforts.

A Problem Solved.—It is now proposed to solve a problem involving the points discussed. Let us prepare a Balance Sheet from the following Trial Balance and other data:

Trial Balance of the New Co.

DECEMBER 31, 1913

Capital Stock		15,000 00
Unsubscribed Stock	2,000 00	
Merchandise (1/1/13)	5,500 00	
Purchases	28,300 00	
Sales		57,690 00
Sales Returns	4,900 00	
Returned Purchases		1,500 00
Shipping Expenses	2,600 00	
Accounts Receivable	14,200 00	
Accounts Payable		7,800 00
Notes Receivable	8,000 00	
Notes Payable		5,000 00
Real Estate	10,000 00	
Advertising	1,000 00	
Real Estate Repairs	875 00	
Expense	4,800 00	
Salaries	5,600 00	
Cash	4,300 00	
Petty Cash	100 00	
Discount on Sales	460 00	
Bank Discount	180 00	
Discount on Purchases		275 00
Salesmen's Salaries	2,000 00	
Selling Expenses	800 00	
Mortgage Payable		6,000 00
Interest on Mortgage	150 00	
Notes Receivable Discounted		2,500 00
	95,765 00	95,765 00

The value of the unsold merchandise, at cost, is $2,460.00. Prepaid advertising is worth $400.00, while $600.00 has been advanced to salesmen and charged to Salesmen's Salaries Account. One-half week's salary is accrued, amounting to $375.00, and the interest on the mortgage to date amounts to $100.00.

Various checking devices are employed by accountants to facilitate the preparation of final Statements. We shall employ a very simple one as a preliminary step. It consists of marking each item of the Trial Balance which is to be used in the preparation of the Balance Sheet. The letter "A" may be used to indicate assets, "L" for liabilities and "C" for capital items. We may then further subdivide the asset and liability items so as to indicate the sectionalizing in the Balance Sheet. If the arrangement adopted is one such that the sequence is current, deferred, trade and fixed, current assets may be further segregated by adding "1" to the "A" already prefixed, current liabilities by adding "1" to the "L," similarly, and likewise for the other items. Upon the completion of the labeling process, the items so marked will be the following:

C	Capital Stock
C	Unsubscribed Stock
A1	Accounts Receivable
L1	Accounts Payable
A1	Notes Receivable
L1	Notes Payable
A4	Real Estate
A1	Cash
A1	Petty Cash
L3	Mortgage Payable
A1	Notes Receivable Discounted

The last item is to be *deducted* from the corresponding asset, rather than shown as a liability, hence, the indicated labeling. Among the inventory items merchandise is marked "A3," a trade asset. Of the others, the first two are deferred assets, marked accordingly "A2," while the last two, deferred liabilities, are marked "L2." The actual preparation of the Balance Sheet is now comparatively simple:

Balance Sheet of the New Company

AS OF DECEMBER 31, 1913

Assets				Liabilities and Capital		
Current Assets:				Current Liabilities:		
Cash		$4,300.00		Accounts Payable	$7,800.00	
Petty Cash		100.00		Notes Payable	5,000.00	$12,800.00
Accounts Receivable		14,200.00		Deferred Liabilities:		
Notes Receivable	$8,000.00			Salary Accrued	$375.00	
Less Notes Discounted	2,500.00	5,500.00	$24,100.00	Int. on Mtge	100.00	475.00
Deferred Assets:				Fixed Liabilities:		
Prepaid Advertising		$400.00		Mortgage Payable	$6,000.00	6,000.00
Salesmen's Salaries advanced		600.00	1,000.00	Total Liabilities		$19,275.00
Trade Assets:				Capital and Surplus:		
Merchandise Inventory			2,460.00	Capital Stock authorized	$15,000.00	
Fixed Assets:				Unsubscribed Stock	2,000.00	
Real Estate			10,000.00	Stock Issued		13,000.00
				Surplus		5,285.00
			$37,560.00			$37,560.00

A few comments are in order. The labeling of the assets is not universal, though to do so is good practice for the beginner. Accountants who do not name the separate divisions as shown above nevertheless often divide the items as shown, but omit the titles.[1] In this connection, the student is advised to consult a series of articles by Mr. H. C. Bentley, C. P. A., on *Standardization of Accounting Forms and Methods* in volume thirteen of *The Journal of Accountancy*, which very ably treats of the lack of uniformity in accounting forms.

The surplus of $5,285.00 is obtained by deducting the sum of the liabilities and the capital ($19,275.00 plus $13,000.00 = $32,275.00) from the total assets ($37,560.00). It will be confirmed by the Profit and Loss Statement soon to be presented.

B.—The Profit and Loss Statement

Every item on the debit side of the Trial Balance, as the student should know from his previous study, represents either an asset or a loss (cost).[2] If, then, we obtain the total of all the items on the debit side of the Trial Balance not already marked A1, A2, etc., and to this sum add the deferred liabilities, we obtain, in the case of The New Company, the sum of $57,640.00. The unlabeled credit items, gains or proceeds, plus the deferred assets, equal $62,925.00. The difference between the rough total profit and equally rough total loss (proceeds minus costs) is $5,285.00.

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[1] There is a growing tendency to reverse the order of the divisions. Accordingly, the fixed assets would be shown first, and the current assets last; similarly for the capital and liabilities.

[2] Negative debits, like Unsubscribed Stock, are treated as credits. Negative credits, like Notes Receivable Discounted, are handled as debits.

If the object of a Profit and Loss Statement were to prove the difference between assets and liabilities plus capital, our work would now be complete. But this latter statement has a more useful function to perform. It is to be so arranged as to disclose the *sources* of profits and losses, as well as the net result of operations. Accordingly, it is necessary to separate our items in a manner somewhat analogous to the division shown in the Balance Sheet. Such a statement is called a "Profit and Loss Statement" or a "Trading and Profit and Loss Statement."

We are about to prepare a Trading and Profit and Loss Statement consisting of three divisions or sections, called Trading Section, Administration Section, and Profit and Loss Section, respectively. Though there is as great variation in the contents of these sections as there is in the divisions of the Balance Sheet, the student is safe in familiarizing himself with at least three generalizations:

(*a*) The Trading Section contains on one side the cost of sales and on the other side the proceeds of sales, so that the difference represents the "gross profit (or loss) on trading."

(*b*) The Administration Section contains the expenses connected with the general office. The total of such expenses is deducted from the gross profit on trading, resulting in "gross business profit."

(*c*) The Profit and Loss Section contains items not directly chargeable or creditable to other sections. These, in connection with the gross business profit, establish the "net profit" or "net loss."

What has just been said would, logically, better follow than precede the Statement about to be presented. The student should reread and study the above generalizations in connection with the Statement. Assuming that the items of the Trial Balance have been marked so as to facilitate sectionalizing, we obtain:

Trading and Profit and Loss Statement of the New Company

FOR THE PERIOD ENDING DECEMBER 31, 1913

TRADING SECTION

Mdse. Inventory 1/1/13		$5,500.00	Sales		$57,690.00
Purchases	$28,300.00		Less Sales Returns	$4,900.00	
Less Returned Pur.	1,500.00	26,800.00	Disct. on Sales	460.00	5,360.00
		$32,300.00	Net Sales		$52,330.00
Less Inventory, 12/31/13		2,460.00			
(Turnover)		$29,840.00			
Shipping Expenses		2,600.00			
Advertising	$1,000.00				
Less unconsumed	400.00	600.00			
Salesmen's Salaries	$2,000.00				
Less prepaid	600.00	1,400.00			
Selling Expenses		800.00			
		$35,240.00			
Gross Profit on Trading, carried to Administration Section		17,090.00			
		$52,330.00			$52,330.00

ADMINISTRATION SECTION

Real Estate Repairs (Office)		$875.00	Gross Profit on Trading, brought down from Trading Section		$17,090.00
Expense		4,800.00			
Salaries	$5,600.00				
Accrued	375.00	5,975.00			
		$11,650.00			
Gross Business Profit, carried to Profit and Loss Section		5,440.00			
		$17,090.00			$17,090.00

PROFIT AND LOSS SECTION

Bank Discount		$180.00	Gross Business Profit, brought down from Administration Section		$5,440.00
Interest on Mortgage	$150.00		Discount on Purchases		275 00
Accrued	100.00	250.00			$5,715.00
		$430.00			
Net Business Profit		5,285.00			
		$5,715.00			$5,715.00

In addition to the preliminary remarks regarding the above statement, a few additional comments may be helpful:

(*a*) Note that, unlike in the Ledger Accounts, offsetting items are *deducted* rather than added tó the opposite side. Thus, the inventory of merchandise now on hand is subtracted from the total of net purchases and amount on hand at the beginning of the year; similarly, return sales and discount on sales are deducted from the gross amount of the year's sales so as to obtain net sales. Such deductions are a distinguishing feature of statements as compared with the corresponding ledger accounts, soon to be studied.

(*b*) English accountants, and, to a much more limited extent, American practitioners, have emphasized the result called "turnover" in the Trading Section. It may be defined as the first or prime cost of goods sold. For example, in a new concern it would represent the amount of net purchases less the inventory at the end of the period. If freight charges were paid upon receipt of goods, so-called "freight inward" or "freight in," the total of such charges would increase the amount of the turnover. The practical value of this figure is statistical, that is, it serves as a useful percentage basis in determining relative selling efficiency, as will be elaborated in Chapter IX.

(*c*) The deductions from advertising and from salesmen's salaries need very little explanation. It should be noted in passing, however, that all legitimate inventory or adjustment items appear in both the Balance Sheet and the Profit and Loss Statement, while Trial Balance items appear in only one *or* the other of these final exhibits.

(*d*) Students taking examinations are confronted with difficulties which may be overcome much more easily in actual practice. Let us consider real estate repairs as an illustration. We must decide whether to include this cost among trading expenses or among administration expenses. If we had access to the books and vouchers, it would be an easy matter to learn whether the repairs were made to the warehouse or showroom buildings, or to the general office building, or in what proportion, so that we could decide upon the proper section in which to include the items in question. Though in advanced work it is customary to make arbitrary divisions between sections in such cases, it was deemed simpler, in the present instance, to assume that it was the office building which had undergone repairs, and, accordingly, the item was charged to cost of administration.

(*e*) The observing student will probably be surprised to find that Discount on Purchases is treated as a gain in the Profit and Loss Section rather than subtracted from the purchases in the Trading Section, similar to the deduction from sales. The procedure shown is good practice, however, because of two reasons:

1. The fact that purchase invoices were discounted was due to the fact that sufficient cash was on hand with which to anticipate bills. To do so, it is necessary either to have ready capital or to discount at the bank. In both cases the Profit and Loss section is charged with the cost, that is, with interest on capital or with bank discount. Hence, it is only fair to offset such costs by any proceeds realized.

2. The selling division had absolutely nothing to do with the discount. It could neither prevent it nor secure it. Thus, the item in no way affects sales, and must not be included.

(*f*) The net business profit of $5,285.00, as shown, is usually carried to another section, often called the "Appropriation Section," wherein is shown the distribution of profits. It is to be noted that the net profit is the same in amount as the surplus of the Balance Sheet, as, of course, it should be. The term surplus rather than net profit or undivided profit is employed because this is the title most generally applied to such items in corporation accounting.

C.—The Profit and Loss Account

Many of those who should know better fail to distinguish between a Profit and Loss *Statement* and a Profit and Loss *Account.* Practically the confusion is not worthy of attention, but, scientifically, it does make a real difference in the development of our subject whether or not we are to create a nomenclature which will be fixed and positive, or one so loose and ambiguous as to make for confusion and laxity. Essentially, an *account* refers to a systematic collection of debit and credit items, grouped under a common title because of common characteristics, and usually found in a Ledger. A Statement may *correspond* to an account, but still it is different. Furthermore, the subtractions perfectly proper in a Statement find expression in the account form by opposing entries. It appears desirable, therefore, to employ literally the terms "Account" and "Statement" in this book, though the student is warned that other authors, practitioners, and examiners often fail to distinguish between the two, so that account and Statement are frequently synonymous. Sometimes, the Statement is called the "Account, report form," while the account is then termed "Account, technical form."

The Trading and Profit and Loss Statement, as understood by us, reveals the progress of the business. It is often required to incorporate this information in the Ledger. The process of so doing is technically referred to as "closing the books." Many accountants do not favor the step because it enables all those who have access to the books to acquire valuable information which is peculiarly the concern of the proprietors themselves, and should probably be kept secret. How to proceed when it is not desired to close the books so as to establish a Profit and Loss Account will not be considered in this book. Here it will be assumed that the books are to be closed in the ordinary way.

From our study of bookkeeping, we know that to close a set of books means, after a Trial Balance has been taken, to set up accounts to show the inventories found at this time and not yet included in the Trial Balance, and to transfer the balances of all Nominal Accounts to a summary account styled Profit and Loss Account or Loss and Gain Account. The accountant does something quite analogous to this, but instead of employing a simple account, he uses a number of them. In the case before us we shall employ three: Trading Account, Administration Account, and Profit and Loss Account. One other difference distinguishes the work of the accountant from that of the bookkeeper. Instead of closing accounts in red ink as the latter does, the former insists that no entries, except balances, shall originate in the Ledger, hence the necessity of framing suitable Journal entries to accomplish the required end.

Closing Journal Entries.—The object of each entry is so clear that no preliminary explanation will be employed. The order, in the main, would be suggested by the sequence of the accounts in the Ledger. The title in (*c*), below, has been chosen rather than the more usual one, for the sake of clearness. This is also true of Prepaid Salesmen's Salaries, in (*d*).

(*a*)	Purchases	$5,500.00	
	To Merchandise		$5,500.00
	To transfer inventory at beginning of year and to close latter account.		
(*b*)	Merchandise	2,460.00	
	Returned Purchases	1,500.00	
	To Purchases		3,960.00
	To set up present inventory of merchandise; and to close Returned Purchases Account.		

(c)	Unconsumed Advertising	$400.00	
	To Advertising		$400.00
	To set up prepaid advertising and to establish cost of year's advertising.		
(d)	Prepaid Salesmen's Salaries	600.00	
	To Salesmen's Salaries		600.00
	To set up debit account, and to establish cost of salemen's service for year.		
(e)	Trading Account	35,240.00	
	To Purchases		29,840.00
	Shipping Expenses		2,600.00
	Advertising		600.00
	Salesmen's Salaries		1,400.00
	Selling Expenses		800.00
	To close above accounts into Trading Account, so as to establish the year's total selling cost.		
(f)	Sales	5,360.00	
	To Sales Returns		4,900.00
	Discount on Sales		460.00
	To close latter accounts into former one, so as to obtain year's net sales.		
(g)	Sales	52,330.00	
	To Trading Account		52,330.00
	To close former account into latter, so as to show proceeds of sales.		
(h)	Trading Account	17,090.00	
	To Administration Account		17,090.00
	To transfer gross trading profit shown by former account to the latter, and to close the former.		
(i)	Salaries	375.00	
	To Salaries Accrued		375.00
	To show full cost of salaries for year and to set up liability for salaries earned but not yet due.		
(j)	Administration Account	11,650.00	
	To Real Estate Repairs		875.00
	Expense		4,800.00
	Salaries		5,975.00
	To close latter accounts into former, so as to show year's administration cost.		

(*k*)	Administration Account.........	$5,440.00	
	To Profit and Loss Account....		$5,440.00
	To close former account and to transfer gross business profit to latter account.		
(*l*)	Discount on Purchases..........	275.00	
	To Profit and Loss Account....		275.00
	To close former account into the latter.		
(*m*)	Interest on Mortgage	100.00	
	To Interest on Mortgage Accrued.....................		100.00
	To show full cost of interest on mortgage and to set up liability for interest already accrued but not due.		
(*n*)	Profit and Loss Account.........	430.00	
	To Bank Discount............		180.00
	Interest on Mortgage......		250.00
	To close credit accounts into the former one.		

After posting the foregoing entries, three results are attained: the Nominal Accounts shown on the Trial Balance are closed; new Real Accounts, showing deferred assets and deferred liabilities, are established; and the Trading Account and the Administration Account are opened and closed, while the Profit and Loss Account shows a net profit of $5,285.00. Certain Journal entries are required to dispose of this surplus, but this topic is reserved for treatment in Chapter IX.

The three Summary Accounts, often referred to as the Trading and Profit and Loss Accounts, follow:

Trading Account

1913				1913			
Dec. 31	Purchases........	J8	$29,840.00	Dec. 31	Sales............	J8	$52,330.00
	Shipping Expenses.		2,600.00				
	Advertising.......		600.00				
	Salesmen's Salaries.		1,400.00				
	Selling Expenses...		800.00				
	Administration Account........		17,090.00				
			$52,330.00				$52,330.00

Administration Account

1913				1913		
Dec. 31	Real Estate Repairs J9	$875.00		Dec. 31	Trading Account . J8	$17,090.00
	Expense..........	4,800.00				
	Salaries..........	5,975.00				
	Profit and Loss Account..........	5,440.00				
		$17,090.00				$17,090.00

Profit and Loss Account

1913				1913		
Dec. 31	Bank Discount....J10	$180.00		Dec. 31	Administration Account......... J9	$5,440.00
	Interest on Mortgage...........	250.00			Discount on Purchases......... 10	275.00
	Net Business Profit	5,285.00				
		$5,715.00				$5,715.00

The student should now carefully compare the Trading and Profit and Loss Account with the Trading and Profit and Loss Statement. It will help him very much if he will prepare a tabular comparison, so as to reveal the resemblances and the differences between the two.

In actual practice, the Statement is submitted to the proprietors, as it is more intelligible to the layman. The accounts shown above would not result from posting the closing Journal entries presented. Why not? Because the itemized charges appearing in the Trading Account, for example, would be posted as a single entry of $35,-240.00. The following accounts will show the reader the Ledger results, in so far as they affect the Trading and Profit and Loss Account, from posting the Journal entries:

Trading Account

1913				1913		
Dec. 31	Sundries*.........J8	$35,240.00		Dec. 31	Sales............J8	$52,330.00
	Administration Account..........	17,090.00				
		$52,330.00				$52,330.00

* Indicates more than one account.

Administration Account

1913				1913			
Dec. 31	Sundries..........	J9	$11,650.00	Dec. 31	Trading Account.	J8	$17,090.00
	Profit and Loss Account..........		5,440.00				
			$17,090.00				$17,090.00

Profit and Loss Account

1913				1913			
Dec. 31	Sundries.........	J10	$430.00	Dec. 31	Administration Account.........	J9	$5,440.00
	Net Business Profit...		5,285.00		Discount on Purchases.........	10	275.00
			$5,715.00				$5,715.00

Why, then, was the Trading and Profit and Loss Account, in its original form, presented at all? Because it is frequently called for by examining bodies. The last form was included because it is the one accountants employ in closing a set of books.

Summary

This chapter should have made clear to the student that he is not to expect uniformity of practice and procedure in his subject. Nevertheless, he may find reasons for the differences which exist, and his purpose should be to learn why different forms obtain in different cases. He will do well to master a definite form of Balance Sheet and of a Trading and Profit and Loss Statement, for then he will be in a position to understand the variety of forms which he will come across in his further studies.

In the Balance Sheet, he should learn to know why separate divisions are used. But he must not be too rigid in his adherence to any single variety, because, though many accountants employ the form shown in this chapter, others arrange the items in the reverse way, and others, regardless of the order employed, do not name the sections but simply divide them off by means of sub-totals. A study of Chapter IX, together with advanced works on the subject and technical articles in the Journal of Accountancy, will serve to emphasize the point just made. In general, the particular purpose for which the Balance Sheet has been prepared will determine the sequence of items therein.

What has been said regarding the lack of uniformity is just as true of Trading and Profit and Loss Statements. Here, too, the student must master one form, and let it serve as a standard whereby to learn and understand other forms. In this Statement two points deserve particular mention:

(*a*) Turnover, a statistical total of great value to the accountant. It may be defined as the prime cost of sales.

(*b*) The titles or phrases applied to the result of the separate sections of the Statement, namely, gross profit on trading, gross business profit, and net business profit. In his further study, the student will find that other titles are used for the balances of the separate sections.

The Trading and Profit and Loss Account is the Ledger arrangement which corresponds to the Statement. The student should carefully study the adjusting or closing entries which establish the resulting accounts.

EXERCISES

Group One

1. Differentiate between (*a*) Trial Balance; (*b*) Statement of Assets and Liabilities; (*c*) Balance Sheet.
2. State the essential differences between a Trading and Profit and Loss Statement and a Trading and Profit and Loss Account.
3. What are deferred assets? Give three examples.

4. What are deferred liabilities? Give three examples.
5. State clearly the reasons for sectionalizing the Balance Sheet.
6. Name the sections of a modern Balance Sheet and give the titles of two accounts in each section.
7. What is meant by closing the Ledger? How does this process affect the accounts of the Ledger?
8. How is "Accrued Interest on Mortgage" Account affected by the subsequent payment of the interest?
9. How do you treat the following items in the Balance Sheet, in the Trading and Profit and Loss Statement, or in both?

   (*a*) Notes Receivable Discounted Account; (*b*) unsubscribed stock; (*c*) unpaid wages; (*d*) taxes accrued but not due; (*e*) coal, charged to Fuel Account, unconsumed.

Group Two

1. William A. Topper and George F. Hinds commenced a partnership on April 1, 1912. On March 30, 1913, they found that the value of their unsold merchandise, at cost, was $6,280.00. Their office furniture was estimated to be worth $800.00. They had paid their rent until May 1, 1913, at $100 per month. They owed about $150 to their lawyer, who had rendered no bill, while their payroll, not due till April 2, already amounted to $310.00. The Trial Balance shown on the next page was taken from their books.

You are requested to:

(*a*) Prepare a modern Balance Sheet.

(*b*) Prepare a modern Trading and Profit and Loss Statement.

(*c*) Frame Journal entries to close the Ledger.

(*d*) Prepare a Trading and Profit and Loss Account.

Trial Balance

Cash	$4,312.00	
Petty Cash	64.50	
Mdse. Inventory, 4/1/12	2,500.00	
William A. Topper, Drawing a/c	200.00	
Purchases	18,000.00	
Sales		$31,181.50
Sales Returns	400.00	
Returned Purchases		325.00
Accounts Receivable	7,000.00	
Notes Payable		2,500.00
Notes Receivable	5,000.00	
Accounts Payable		3,800.00
Rent	1,200.00	
Office Furniture	1,350.00	
Discount on Purchases		180.00
Selling Expenses	2,000.00	
Expense	3,600.00	
Salesmen's Salaries	2,000.00	
Salaries	1,300.00	
Notes Receivable Discounted		1,000.00
Discount on Notes	60.00	
William A. Topper, Capital		5,000.00
George F. Hinds, Capital		5,000.00
	$48,986.50	$48,986.50

BIBLIOGRAPHY

(*See list at end of Chapter IX.*)

CHAPTER VIII

DEPRECIATION, RESERVE, SINKING FUND AND INVESTMENT ACCOUNTING

A.—Depreciation

It is a truism that all physical property wears out. The accountant must take into consideration this physical fact, and make provision for it in his system of accounts. A simple illustration will serve to place the problem before us. Suppose that a company has purchased a warehouse for $10,000.00 and that at the end of the year it is worth only $9,000.00, the decrease being due to "the wear and tear" to which the building was subjected. No one will deny that the decrease in value—the *depreciation*—was a direct result of the use of the building. And if this is so, is there any doubt that the money value of the depreciation is a part of the trading or selling cost? For is it not a fact that, if the building were leased or hired instead of owned, the rental which would necessarily provide for such depreciation suffered by the owner, would be charged to the Trading Account? Hence, in this case we favor a debit to Trading Account amounting to $1,000.00.

We must now give our attention to the offsetting credit of $1,000.00. The entry, when the warehouse was purchased, assuming that it was a cash transaction, was:

Warehouse	$10,000.00	
To Cash		$10,000.00

It is very natural, then, to argue for a credit of $1,000.00 to Warehouse Account, so that it should show the decreased value resulting from a year's use. The principal objection to this procedure is that at the end of a long period it will be difficult to find what had been paid for particular classes of assets, such as machinery, tools, and fixtures, because each year the balance of the respective accounts will have been carried down instead of the totals of each side. To overcome this objection, the credit is made to corresponding accounts, which Professor Hatfield has called "Valuation" Accounts. They are the much used Depreciation Accounts. The entry in our own case will be:

Trading Account	$1,000.00	
To Warehouse Depreciation		$1,000.00

After posting, the two accounts which interest us primarily should be on opposite pages of the Ledger, where they would appear thus:

Warehouse

Date................ $10,000.00	

Warehouse Depreciation

	Date................ $1,000.00

Inasmuch as the second account helps to valuate the first, they are always treated together. The Balance Sheet would contain these items among the fixed assets, as follows:

Warehouse	$10,000.00	
Less Depreciation	1,000.00	$9,000.00

In further study of our subject, we shall meet with various other specific Valuation Accounts. Here it is sufficient to mention Machinery Depreciation Account and a

General Depreciation Account. The latter account, when used, is credited with the amount of depreciation on all properties, but it is not to be recommended, as it makes for obscurity. The treatment of Machinery Depreciation Account will arise in connection with the subject matter of Chapter IX, but it is deemed well to refer to it briefly here. As the decreased value of machinery is the direct result of manufacturing, an account which summarizes the activities of the factory, and analogous in function to the Trading Account in the latter's relation to selling operations, is employed. A "skeleton" entry for machinery depreciation follows:

Manufacturing Account	$——	
To Machinery Depreciation		$——

The Mathematics of Depreciation.—It is one thing to recognize that physical assets are subject to the ravages of time and that they show the effects of use; it is quite a different matter to ascertain *how much* has been the amount of depreciation during a given period.

Theoretically, it is simple arithmetic to decide that if machinery was worth, say, $10,000.00 at the beginning of the year, while now it is worth only $8,000.00, the decrease has been $2,000.00. But who is to know what the present value really is? Engineers and plant experts do appraise such items, but their decisions are, at best, good guesses. Several plans are employed for the purpose of determining each year's depreciation, but we shall present only two of them, as sufficient for the purpose of elementary study.

(*a*) *Method of Fixed Percentage on Cost.*—This is the simplest method. It divides the difference between the cost and the final or residual value by the life of the asset. Thus, if the cost was $1,000.00 and the final value estimated at $200.00, while the life of the asset was estimated at eight years, the annual depreciation would be $100.00.

(\$1,000 minus \$200.00 = \$800.00, divided by 8 = \$100.00). The following formula will serve to aid the memory in retaining the process:

$$D = \frac{V_1 - V_2}{n}$$

"in which D represents the amount of annual depreciation, V_1 equals the cost price, V_2 the residual value, and n the number of years."[1]

As has already been remarked, this method is the simplest, and herein lies its chief advantage. It does not require much particular knowledge or ability to apply the formula, so it is used very frequently. But it is not altogether sound in principle because it fails to take various factors into consideration. One of these is the fact that a machine, for example, does not decrease in value uniformly. As a matter of fact, the decrease during the first year is greatest of all, because it represents the difference in value between a new article and a used one. The other point which the first formula fails to provide for is found in the fact that though repairs during the early years of a machine's life are few, nevertheless the later repairs are not so much the result of an immediate breakdown as they are of the *cumulative* effects of total use. Moreover, as repairs and depreciation are both finally charged to the same account,—to Manufacturing Account in the case of machinery,—the application of the formula discussed would mean that the distribution of the total of depreciation and repairs for the full life of the machine would be inequitable in that less would *appear* to have been incurred during the early years and more during the later ones. To overcome this defect, another formula may be employed:

(*b*) *Method of Fixed Percentage on Declining Cost.*—

[1] See footnote on following page.

Here a portion (per cent.) of the original cost is charged off for depreciation during the first year. The second year the same per cent. is taken on the evaluated cost, that is on the difference between the Asset Account and the Depreciation Account. During subsequent years the same part is deducted from such declining values, so that at the assumed expiration of the machine's usefulness its value on the books will equal its desired residual value. A simple method of obtaining this per cent. figure is discussed by Professor Hatfield in his chapter on Depreciation.[1] To recur to the example previously employed, if the original value of a machine were $1,000.00, its final value $200.00, and its lifetime eight years, 18.22% should be deducted from the declining value each year so as to reduce the book value to the residual value at the end of eight years.

The depreciation each year, instead of being $100.00 as before, is shown by the following:

Table of Depreciation.

Year	*Book Value*	*Depreciation at 18.22%*
1	$1,000.00	$182.20
2	817.80	148.98
3	668.82	121.86
4	546.96	99.66
5	447.30	81.50
6	365.80	66.65
7	299.15	54.51
8	244.64	44.64[2]
Final	200.00[2]	

[1] See the admirable chapter on "Depreciation" in Hatfield's *Modern Accounting.* The formulæ employed herein are according to Professor Hatfield's notation. The formula for (*b*) is: $r = 1 - \sqrt[n]{\frac{v_2}{v_1}}$, in which r represents the percentage desired, and the other symbols are employed as before. Solving by the aid of logarithms, we obtain 18.22%.

[2] The last depreciation is only $44.57. To bring the book value down to $200.00, seven cents was added to the former.

It is seen that the depreciation for the first year is $182.20, while for the eighth year it is only $44.64. Thus, this formula meets the two objections raised against the first formula, in that it provides for greater depreciation during the early years to correspond to the actual economic facts in the case and it also tends to equalize the charge to Manufacturing Account by providing more depreciation during the years when repairs are at a minimum.

B.—Reserve

We have previously noted the fact that the disposition of profits in a corporation is quite different from that of partnerships. In the latter case, the articles of copartnership are to be interpreted properly, and the Profit and Loss Account is thereupon closed by a simple entry charging it and crediting the individual accounts of the partners. But the board of directors of a corporation, before distributing profits in the form of dividends, should retain some portion of them for various purposes, or else, as was remarked in another connection, the company will be in no better financial situation after many years' successful operation than at the beginning. The profits so retained or reserved are called *reserves,* and the account which records the fact is a Reserve Account.

Let us now consider a few particular cases.

The New Trading Company commences business with a capital of $50,000.00, and at the end of the year it finds that it has earned $10,000.00. Calling this profit "surplus," we obtain the following:

Balance Sheet

Assets	$160,000.00	Liabilities	$100,000.00
		Capital Stock	50,000.00
		Surplus	10,000.00
	$160,000.00		$160,000.00

If the directors now declare and pay a dividend of 10%, the assets will be reduced to $155,000.00 and the surplus to $5,000.00. They may then decide to reserve $3,000.00 of the surplus profits for future additions to the plant, so that only $2,000.00 remains of the general surplus. Such reservation simply labels or marks a portion of the profits and, as will be seen from the accompanying entry, does not affect the assets in any way. The entry when dividends are declared is:

Surplus	$5,000.00	
To Dividends Payable		$5,000.00

When they are paid, the entry therefor is:

Dividends Payable	$5,000.00	
To Cash		$5,000.00

And when the $3,000.00 is reserved, the entry is:

Surplus	$3,000.00	
To Reserve for Plant Additions		$3,000.00

The Balance Sheet at this point is:

Balance Sheet

Assets	$155,000.00	Liabilities	$100,000.00
		Capital Stock	50,000.00
		Reserve for Plant Additions	3,000.00
		Surplus	2,000.00
	$155,000.00		$155,000.00

The question may be asked, where is the $3,000.00 so reserved? In truth it could not be pointed out definitely. But neither can the surplus of $2,000.00 be definitely shown, nor the one of $5,000.00, as it really is, because the Reserve Account is only some special surplus. Why not? Because surplus (profits) is the excess of present capital over past capital. The capital was $50,000.00; the present capital is $55,000.00 ($155,000.00 less $100,000.00), or

$5,000.00 greater than that in the beginning. The reason for this excess lies in the difference between the assets and the liabilities,—in the fact that, if all liabilities were liquidated or paid, $55,000.00 would remain. This $55,000.00 would be sufficient to repay the investment of $50,000.00, and leave a balance—surplus—of $5,000.00. Just as it would be impossible to place one's finger on any single asset item and say that it is the offset to a particular credit item, so, too, it is impossible to segregate any of the general assets as representing, in particular, the profit.

It is because of this inability clearly "to see" the profit or surplus assets that very conservative business men sometimes wish to label particular assets so that there shall be no doubt of the fact that actual money is at all times available for the purposes of the Reserve Account. To do so, it is sufficient to set aside some cash, call it "Reserve Cash," and thus keep it intact. Such reserved cash is referred to as a "Reserve Fund" to differentiate it from a Reserve Account, which, as we have seen, is the result of a charge to Surplus Account, and which is in no way related to the assets. If we assume that such a Reserve Fund has been created by crediting Cash Account and debiting "Reserve Fund" Account, we then have the following:

Balance Sheet

General Assets	$152,000.00	Liabilities	$100,000.00
Reserve Fund	3,000.00	Capital Stock	50,000.00
		Reserve for Plant Additions	3,000.00
		Surplus	2,000.00
	$155,000.00		$155,000.00

In order to emphasize the mutual independence existing between the debit Reserve Fund Account and the credit Reserve Account, the student's attention is directed to the fact that the fund might have been created in order to make sure that there would be on hand available cash for the purpose of plant additions without the separation of the surplus of $5,000.00 into two parts. Had this latter step not been taken we should have had the following:

Balance Sheet

General Assets	$152,000.00	Liabilities	$100,000.00
Reserve Fund	3,000.00	Capital Stock	50,000.00
		Surplus	5,000.00
	$155,000.00		$155,000.00

As a matter of fact many accountants are not at all clear in their understanding of this subject, as witness many controversial articles in the *Journal of Accountancy.* We trust that the student, at this stage of his learning, recognizes that a Reserve Account is retained surplus profits and nothing else, and that a Reserve Fund Account is segregated assets, usually cash or cash invested in securities, and nothing else. Also, though there is usually a correspondence between a credit Reserve Account and a debit Reserve Fund Account such correspondence is not necessary. Were it not for the fact that so many accountants are sufficiently conservative to adhere to the practice of using both accounts and funds, sometimes in deference to custom, and that consequently the student must understand the subject, this topic would have been eliminated from the present writing.

Other Reserves.—We have thus far treated a simple type of Reserve Account, but though it is impossible to cover the entire field in the space at our disposal, a few additional examples must be submitted. At the end of a given period, the net sales for the year obviously affect the amount of net profits. Or, more simply, everything else being equal, the greater the amount of net sales the greater the net profit. As an offset to sales, we have, among other entries, debits to Accounts Receivable. Experience teaches us that it is most unusual to be able to collect from all debtors; some will default in payment, thereby causing a loss. As we usually are unable to state definitely the exact amount of such default, it is conservative practice to retain some of the profits,—profits based on a belief that all debtors' accounts are good,—instead of paying them out in dividends. The account which records such retention is called "Reserve for Bad Debts" Account. Clearly, if a simple surplus had been retained, the same object would have been accomplished, but, in this case, as we shall soon see, there is sound justification for setting up a special Reserve Account. The usual form of entry is:

Surplus	$——	
To Reserve for Bad Debts		$——

This reserve for bad debts is not to be confused with actual bad debts. The point will be made clear by means of simple illustrations. If we fail to effect collection from a customer after a reasonable time, it is sometimes deemed advisable to remove such an account from the Sales Ledger, and consequently from Accounts Receivable, by transferring it to the General Ledger under the caption, "Doubtful Debts." This account is a sort of "Sundries" Account. It has each particular debtor's name listed in the explanation column on the debit side, so that the claim shall stand out prominently.[1] If the claim is decided to be worthless it is transferred to "Bad Debts" Account by a Journal entry of the following type:

Bad Debts	$——	
To Doubtful Debts		$——

[1] The procedure is much simplified when a card ledger is employed.

Likewise, if a part of the doubtful debts has been collected, and only the balance is regarded as worthless, the entry just shown is employed for the loss.

If the Bad Debts Account for the first year amounts to, say, $600.00, it is "written off" to the Profit and Loss Account by means of the following entry:

Profit and Loss	$600.00	
To Bad Debts		$600.00

If however, the loss occurred subsequent to the establishment of the "Reserve for Bad Debts" Account, certain complications exist.

The student will recall that the Reserve Account was created by carrying to it a part of the net profits,—surplus. Had it been positively foreseen that some of the book debts would be lost a charge therefor would have been made to Profit and Loss Account. Let us assume that of the $600.00 of bad debts $200.00 represents last year's sales. This amount *should have been* charged to the Profit and Loss Account of last year. It is too late to do so now. But it is a fact that our reservation of profits—Reserve for Bad Debts—is $200.00 less than it appears to be, hence the following Journal entry to adjust it:

Reserve for Bad Debts	$200.00	
To Bad Debts		$200.00

The balance of $400.00 is a loss of the current year, and should be closed by the following entry:

Profit and Loss	$400.00	
To Bad Debts		$400.00

Should it now be desired to reserve additional profits in order to anticipate *future* bad debts, the student knows what to do. If, however, the balance of the Reserve Account is deemed sufficient, nothing need be done in the matter.[1]

The student will sometimes come across an account entitled "Reserve for Depreciation." In most cases he will find it synonymous with Depreciation Account. This statement illustrates the fact that, connected with the subject of reserve and depreciation, he will find much ambiguity and confusion because of non-uniform and faulty terminology. But he should not be discouraged, for, before long, there is bound to be light. Of course, if reserve for depreciation is synonymous with depreciation, nothing more need be said. But it should not be synonymous. Reserve for depreciation, better styled "reserve for machinery," should mean a reservation of surplus for the purpose of retaining sufficient profits wherewith to purchase new machinery, say, when the old has to be abandoned. To illustrate the essential difference:

(*a*) *Depreciation Account.*—This account helps to valuate the asset account to which it refers. In a sense it is the credit side of the corresponding asset account. It results from a charge to some Profit and Loss Account, as Manufacturing Account, because it represents a real cost. A real cost, for, if the property in question had not been owned so that wear and tear would have affected its value to us, it would have been hired. And the hiring rate would surely have been regarded as a cost.

(*b*) *Reserve for Depreciation Account.*—This is a name applied to a part of net profits. It results from a bookkeeping transfer of profits—surplus—to the account in question. It anticipates a probable need of the future, so past profits are conserved in order to replace existing

[1] The student must not carry away the impression that he has read the last word on this topic. He will have to refine his notions by later study.

properties; whereas Depreciation Account is a recognition of the fact that the substance of a machine *has* been given off in the process of manufacturing.

Reserve Versus Surplus.—There still remains for treatment the nature of a Reserve Account *per se,* and the relation between Reserve Account and Surplus Account.

As we must know by this time, surplus and net profits—*the excess of assets over liabilities and capital investment*—are synonymous. If there exists any valid distinction between the two, it is probably to be found in the fact that net profits refer most often to the last single year or period under review, while surplus is more general and applies to the total of all past net profit still retained by the business. Inasmuch as it is customary to pay dividends "out of surplus" rather than out of net profits,—sometimes a distinction without a difference,—the practice has arisen of withdrawing some of the surplus so that it shall not (apparently) be subject to dividend declarations. This leads us to the subject of Reserve Account.

That part of the surplus profit, shown by the Surplus Account, which is withdrawn from the immediate purposes of dividends, or which is reserved, is transferred to Reserve Account. If it is not only reserved in general but for some specific purpose, instead of calling it Reserve Account the nature of the reservation is made clearer, and thus we have such accounts as Reserve for Plant Additions and Reserve for Insurance. Hence the Surplus Account and the Reserve Account are alike in that they are both representative of net profits, but they differ, if they differ at all, in that the Reserve Account is somewhat more immune from depletion than is the Surplus Account.

The last qualification regarding the difference between the two accounts was occasioned by the knowledge that, when necessity arises for the use of accumulated profits, both the surplus and the reserves may be levied upon. And this leads us to the concluding statement regarding Reserve Accounts. Reserves, especially general reserves, give strength to a business, because, like an army and a navy, they may be called upon in an emergency. If a year should turn out poor, so that it did not warrant the declaring of dividends, the fact that all the profits of past years were not disbursed would enable the directors to declare dividends nevertheless. So we may say that reserves help to equalize dividends. Again, should trade changes occur so that much of the existing plant would have to be replaced by improved machinery, the fact that profits had been accumulated would be of great help. And what has been said of reserves applies in like measure to surplus.

Reserve Funds.—That portion of the assets, usually cash, which has been reserved and earmarked, as we learned, is called a reserve fund, and is shown by a Reserve Fund Account. If investments are purchased, because it is not deemed good policy either to retain the fund for the usual purposes of the business or to deposit it specially, the following entry is made:

Reserve Fund Investments	$———	
To Reserve Fund		$———

When certain property is acquired as contemplated by the purpose of the reserve fund, the investments are disposed of, necessitating the reversing of the foregoing entry. If the asset bought is a machine, for instance, the resulting entry is:

Plant and Machinery	$———	
To Reserve Fund		$———

The change, it should be apparent, is one of fixed assets (machinery) for one of current assets (fund or cash). Otherwise the Balance Sheet is not affected in any way.[1]

C.—Sinking Fund

When borrowing money on bonds it is often stipulated that there shall be created a fund by annual installments so that, upon the maturity of the obligation, enough shall have been accumulated to cancel the liability. Let us assume that the original debt amounts to $20,000.00, and that it is due in ten years, with interest at 5 per cent., payable semi-annually; $2,000.00 should be taken out of general cash each year and reserved, or, as is more usual, deposited with the designated trustee. When this payment is made an entry of the following form is in order:

Sinking Fund Cash	$2,000.00	
To Cash		$2,000.00

At the maturity of the debt, just before paying it, we have the following:

Balance Sheet

Cash	$50,000.00	General Liabilities	$30,000.00
Other Assets	80,000.00	Bonds Payable	20,000.00
Sinking Fund Cash	20,000.00	Capital	75,000.00
		Surplus and Reserves	25,000.00
	$150,000.00		$150,000.00

Upon the cancellation of the bonds—the "funded debt"—and the posting of the necessary entries we have this:

[1] The advanced student may comment on the absence of any discussion at this point of the effect upon the Reserve *Account*. It has been purposely omitted in the belief, based upon considerable experience with students, that it will not arise until later. To suggest the thought in the text might lead to undesirable confusion; but see bibliographical note for references on this subject.

Balance Sheet

Cash	$50,000.00	General Liabilities	$30,000.00
Other Assets	80,000.00	Capital	75,000.00
		Surplus and Reserves.	25,000.00
	$130,000.00		$130,000.00

Let us assume that, when the $20,000.00 was borrowed, it was invested in the plant, a not unusual practice. Then the amount was used to make up the $80,000.00 of "Other Assets" in the foregoing Balance Sheets. But where did each year's $2,000.00 come from? From the cash of the business,—from the cash which *might* have been paid out as dividends, but which was retained instead. And the fact that it was so retained accounts in a measure for the amount of "Surplus and Reserves, $25,000.00." But, and this is the final question, where can this $25,000.00 be found? In the excess of present capital ($100,000.00) over invested capital ($75,000.00). This excess of $25,000.00 includes $20,000.00, which is found among "Other Assets" in virtue of the fact that the plant acquired by borrowed money was really paid for out of profits, in that they were not distributed to stockholders. Consequently, this part of the plant represents a gain to the business, which is shown by the fact that the surplus profits include it.

D.—Investment Accounting

Simple Investment Accounting.—Closely connected with the subject of Sinking Funds is the accounting for investments. It must be carefully distinguished from what is known as the *accountancy of investment.* The second is a much narrower, technical term, which is included under the broader significance of the first.

We are familiar with the bookkeeping necessary for the investments of the individual owner of a concern, the partners of a firm, and the stockholders of a corporation. The bookkeeping records in each of these instances are often referred to as opening entries. A business organization may invest some of its funds in real estate, bonds, and stocks. Such investments may be for the purpose of utilizing idle capital, speculating, or to create a reserve fund or a sinking fund. Fund investments almost invariably assume the form of bond purchases.

A few problems in the simpler form will first be solved, and we shall then call attention to the technical side of the accountancy of investment:

(*a*)—Purchased loft building, 110 Worth Street, City, $100,000.00; cash upon execution of deed, $30,000.00; balance, five-year mortgage, with interest at 5%, semi-annually (April 1 and October 1).

1. The entry at the time of purchase is:

Real Estate	$100,000.00	
To Cash		$30,00.00
R. E. Mortgage Payable		70,000.00

2. Entries for repairs are of the form:

R. E. Repairs	$.......	
To Cash		$.......

3. Payments of interest result in:

Interest on Mortgage	$1,750.00	
To Cash		$1,750.00

4. Payments of taxes result in:

R. E. Taxes	$.......	
To Cash		$.......

5. Receipts of rent are recorded thus:

Cash	$.......	
To Rent		$.......

6. Improvements which enhance the value of the property should find expression in an entry increasing the book value of the property:

Real Estate	$.......	
To Cash		$.......

(*b*)—Bought 100 shares U. S. Steel at $72\frac{7}{8}$, plus brokerage.

1. The entry at the time of purchase is:

Investments	$7,300.00	
To Cash		$7,300.00
or		
U. S. Steel Stock...........	$7,300.00	
To Cash		$7,300.00

2. When each quarterly dividend is received:

Cash	$125.00	
To Interest on Investments........		$125.00

3. If the stock were sold at 75, inclusive of brokerage:

Cash	$7,500.00	
To U. S. Steel Stock..............		$7,300.00
Profit on Investments..........		200.00

4. Should the stock have been sold at 70, net, the entry would have been:

Cash	$7,000.00	
Loss on Investments........	300.00	
To U. S. Steel Stock..............		$7,300.00

(*c*)—Bonds purchased at par, or at any price with the intention of disposing of them in a very short time and not holding them to maturity, may be treated similarly to the stock in (*b*), above. The title of the bond account is usually given in full, as will be shown below.

(*d*)—Promissory notes remain for discussion.

1. Let us assume that John Doe invests, among other items, a promissory note in his favor, M. Brown, maker, for $1,000.00, and not due until thirty days hence. In practice Mr. Doe's partner would probably waive consideration of the fact that the present value of the note was only $995.00 (discount $5.00), and consider it as an investment of $1,-000.00. But theoretically, and actually in cases where many notes are involved, the discounted value would be the one for which the partner should receive credit. The entry for the investment in question is:

Notes Receivable	$1,000.00	
To John Doe, Capital.............		$995.00
Discount Earned...............		5.00

2. When the firm receives payment for the note, the entry is:

Cash	$1,000.00	
To Notes Receivable...............		$1,000.00

3. If the note invested by Mr. Doe were an interest-bearing one, a new difficulty would have to be met. Say that the note was for ninety days, with interest at 6 per cent. Then the value of the note at maturity would be $1,015.00 ($1,000.00 plus $15.00 interest), and the present or discounted value, $1,009.92 ($1,015.00, less 30 days' discount, $5.08). The entry would have to show the accrued interest acquired, and the discount earned:

Notes Receivable	$1,000.00	
Interest Accrued	15.00	
To John Doe, Capital.............		$1,009.92
Discount Earned		5.08

4. When the firm received full payment for the note, the payment would cancel the face of the note and the accrued interest, so that the credit to Discount Earned Account in entry 3 would show the profit which the firm earned as a result of the transaction:

Cash	$1,015.00	
To Notes Receivable...............		$1,000.00
Interest Accrued		15.00

5. Another, and probably more popular, interpretation of the situation presented in case 3, above, is that Mr. Doe invested a note worth $1,010.00 (face $1,000.00, plus sixty days' interest, $10.00). The entry resulting from such a solution follows:

Notes Receivable	$1,000.00	
Interest Accrued	10.00	
To John Doe, Capital...............		$1,010.00

6. The entry upon payment, to follow number 5, is:

Cash	$1,015.00	
To Notes Receivable		$1,000.00
Interest Accrued		10.00
Interest Earned		5.00

(Note that the difference of eight cents is accounted for by the arithmetical steps involved, and that the accounts recording the profit are Discount Earned in the first case and Interest Earned in the second. Recall the commercial arithmetic distinction between interest and discount. In accounting this distinction is not of very much moment.)

7. An interesting case exists when such an interest-bearing note is discounted. Say that the note in case 3, above, was discounted at the firm's bank fifteen days before maturity, at 6 per cent. The bank discount would be $2.54 and the net proceeds $1,012.46. Because of the fact that the firm failed to hold the note until maturity, its anticipated profit, as shown in the Discount Earned Account, has been reduced to $2.54 ($5.08, less $2.54). The reduction is brought about by charging Discount Lost Account $2.54:

Cash	$1,012.46	
Discount Lost	2.54	
To Notes Receivable		$1,015.00

8. The entry upon discounting the note, if the solution shown in case 5, above, had been adopted, would be:

Cash	$1,012.46	
To Notes Receivable		$1,000.00
Interest Accrued		10.00
Interest Earned		2.46

Accountancy of Investment is the title of a book by the late Professor Charles Ezra Sprague, which deals with the technical features involved in our subject. It is distinguished from the matter thus far discussed by the fact that the computations involved are based upon compound interest. We cannot here reproduce even a fair summary of the admirable contribution of Professor Sprague, but we cannot conclude this chapter without some brief reference to a few chapters in his book.

This refers to the method of recording bonds bought above or below par.

(*a*)—Assume the purchase on July 1, 1912, of ten N. Y. Central bonds, maturing July 1, 1913, and bearing semi-annual interest at the rate of four per cent. per annum. The net price paid was 101, which means $1,010.00 for each bond (par value $1,000.00).

1. The entry at the time of purchase is:

N. Y. C. Bonds, 1913....	$10,000.00	
Bond Premium	100.00	
To Cash		$10,100.00

2. On January 1, 1913, we would receive $200.00 interest. The entry which first suggests itself is to charge Cash Account and to credit Interest on Investments. But that this is not entirely correct is about to be shown. Why were we willing to pay $10.00 above par for each bond? Probably because securities of such a grade would be acceptable at par when bearing a lower rate of interest. The fact that these bonds bore four per cent. made them more desirable. It may be said that we were willing to buy and pay for the excess interest which we would receive until the maturity of the bonds. At maturity they would be redeemed by the New York Central Railroad Company at par. Inasmuch as our investment was more than par, we must provide for an accumulation of excess interest received, so that at maturity the said accumulation and the amount received from the railroad company shall equal the amount of our investment. The accumulation referred to is called *amortization.*

The following entry, made on January 1, 1913, when we received $200.00, we must divide into two parts; one portion will represent the amortization and the other the interest on the investment. The latter is regarded as income and may be used up; the former is regarded as a part of the principal which must be retained in the business:

Cash	$200.00	
To Amortization		$50.00
Interest on Investments		150.00

3. Six months after the time of entry 2, above, two transactions are to be recorded: the receipt of the semi-annual interest and the redemption of the bonds. The first entry need not be shown, as it is exactly like the one above. The other follows:

Cash	$10,000.00	
To N. Y. C. Bonds, 1913.........		$10,000.00

4. Another entry is necessary at this time. The amortization account (or fund, as it is called by some) is exactly equal to the amount of premium paid for the bonds. There is no longer any object in keeping both accounts on the books, so the following entry adjusts the matter:

Amortization	$100.00	
To Bond Premium................		$100.00

(*b*)—A somewhat similar situation arises when bonds are purchased at a discount. No solutions will be offered, because the student should be able to solve such problems by reasoning them out for himself.

(*c*)—The amount of the amortization, and hence of the interest on investments, is not absolutely correct in case (*a*), above. This is so because the existence of compound interest was disregarded. The necessary refinements, and other accounting propositions based upon the mathematics of compound interest, cannot be presented here. On these points *The Accountancy of Investment* must again be suggested.

Summary

This chapter illustrates the accounting in recognition of the fact that physical properties wear out or depreciate. Depreciation Accounts evaluate corresponding Asset Accounts. The rates of depreciation are decided upon by several distinct methods, two of which have been discussed. These were the method of fixed percentage on cost and the method of fixed percentage on declining cost. Though the first method has simplicity in its favor, the second is the more scientific because it more nearly corresponds with the actual phenomenon of depreciation and because it tends to equalize the upkeep charge of the asset during its lifetime.

Profits, instead of being disbursed, may be reserved, giving rise to Surplus Account and Reserve Account. When profits are reserved for specific purposes, the reserve is labeled accordingly. Sometimes cash is reserved in a similar way, so that we have Reserve Fund Accounts. Though there may be an exact correspondence between the debit Reserve Fund Account and the credit Reserve Account, such equivalence is not necessary. Reserve Accounts and Surplus Accounts, it has been pointed out, have much more in common than is often recognized.

Sinking funds are accumulations of cash, either kept as such or invested in securities, with which to pay off a bonded or funded debt. The essential difference between a Sinking Fund and a Reserve Fund is that the former is created for the purpose of extinguishing a debt whose maturity is certain and fixed, while the latter may be employed whenever the proprietors decide to do so.

Closely connected with the subject-matter of this chapter is the so-called accountancy of investment. Aside from the elementary aspect of this subject, the main task consists of an application of compound interest. Purchase of bonds at a premium or at a discount, a gradual extinction of such premium or discount, the setting aside of sinking fund installments, and the creation of annuities constitute some of the specific problems of this division.

The subject-matter of this chapter, in actual practice and in advanced study, is made much more difficult than it inherently is because of the faulty, ambiguous, and non-uniform terminology employed. Probably no other division of accountancy is in such great need of terminology or nomenclature standardization as is the present one.

EXERCISES

Group One

1. Distinguish between a Reserve Fund Account and a Reserve Account.
2. Show in what respect surplus and reserves are identical, and also how they differ.
3. Describe what is meant by depreciation and show what evil results might follow by not taking it into consideration.
4. Distinguish briefly between Depreciation Account and Reserve for Depreciation Account.

Group Two

1. As the accountant for a factory, how would you decide upon the proper annual allowance on a machine costing $15,000.00 which had just been installed?
2. (*a*) How much should be set aside each year so that at the maturity of a fifteen-year mortgage of $10,000.00 enough shall have been provided to cancel it?
   (*b*) Show the Journal entry at the time of the first sinking fund installment.
   (*c*) Show a type entry when investments are bought.
   (*d*) Show the entry when the mortgage is paid.
3. As an original exercise, securing such help as you can from the bibliographical list appended to this chapter, find how much each installment should have been if it were immediately invested at 3 per cent.
4. Show a type entry for depreciation.
5. Show a type entry for depreciation reserve.

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CHAPTER IX

ADVANCED FORMS OF FINAL STATEMENTS

A.—Trading and Profit and Loss Statement

We recur to this subject because we were not ready to consider certain topics in connection with the work of Chapter VII. These new matters concern depreciation and reserve, treated of in the last chapter. Let us now proceed with the problem of constructing a Trading and Profit and Loss Statement from the following Trial Balance and additional information. A rather complex case has been chosen because, if understood, the ordinary problem of this sort should not prove difficult.

Before attempting to solve problems of this sort, it is wise to make sure of our premises. Is the Trial Balance really in balance? Add up the debit and the credit sides, and assure yourself of the correctness of the totals given. This is a wise precaution, as cases are known where candidates at examinations spent much time in useless worry as a result of accepting the Trial Balance without taking the precaution of first checking the totals.

It is also well to glance rapidly over the items so as to discover any improbable, or even impossible, ones. For example, Cash Account with a credit balance would be an improbable item. It would be correct only in case an overdraft existed at the time the Trial Balance was prepared. But Sales Account with a debit balance, or Discount on Sales Account with a credit balance, would be impossible items. What to do when confronted with such situations cannot be discussed at present.

Trial Balance of the Smith Manufacturing Co.

DECEMBER 31, 1913.

Capital Stock		25,000 00
Unsubscribed Stock	5,000 00	
Surplus		10,000 00
Cash	12,000 00	
Accounts Receivable	10,000 00	
Notes Receivable	24,000 00	
Notes Payable		8,000 00
Loans Payable		20,000 00
Accounts Payable		23,000 00
Bad Debts	500 00	
Real Estate (Factory)	10,000 00	
Plant and Machinery	15,000 00	
Depreciation on Plant and M'ch'y		3,000 00
Tools	2,600 00	
Depreciation on Tools		600 00
Raw Materials, 1/1/13	3,000 00	
Goods in Process, 1/1/13	1,000 00	
Finished Goods, 1/1/13	5,000 00	
Purchases Raw Materials	60,000 00	
Freight Inward	1,000 00	
Fuel	2,500 00	
Factory Labor	18,000 00	
Foremen's Salary	3,500 00	
Machinery Repairs	700 00	
Factory Expense	1,200 00	
Insurance on Factory	500 00	
Sales		119,150 00
Freight Outward	1,300 00	
Shipping Expenses	2,600 00	
Salesmen's Commission	7,200 00	
Traveling Expenses	1,700 00	
Advertising	2,000 00	
Warehouse Rent	2,400 00	
Insurance on Warehouse	300 00	
Office Expense	3,100 00	
Salary	5,600 00	
Directors' Fees	200 00	
Bank Discount	350 00	
Interest on Loans	1,500 00	
Collection and Exchange	100 00	
Sales Returns	7,000 00	
Returned Purchases		2,500 00
Discount on Sales	1,200 00	
Discount on Purchases		800 00
	212,050 00	212,050 00

The following goods are found on hand, inventoried at cost:

Raw materials, $6,000.00; goods in process, $3,500.00; finished goods, $10,000.00. Write off 10% ($1,200.00) for this year's depreciation of factory and 25% ($500.00) from tools. Fifty per cent. of factory insurance and 40% of warehouse insurance is still in force. Write off from accounts receivable $450.00, representing bad debts (as per schedule), and create a reserve of $2,000.00. The board of directors declares a dividend of 10% on all outstanding stock.

The first step consists of labeling the items so as to indicate the sections of the Trading and Profit and Loss Statement affected. No difficulty ought to be experienced until we come to such items as raw materials, fuel, and factory labor. These do not seem to belong to any of the sections with which we are familiar, as, indeed, they do not. They constitute items of manufacturing cost, and are shown in a separate section called "Manufacturing Section," which precedes the Trading Section.

A few remarks will help to make clear the solution soon to be offered. Manufacturing cost includes all those items which are directly and necessarily concerned in the process of production. It does not include advertising, for example, because this expense is incurred to market an article after production. The Manufacturing Section is arbitrarily divided into two sections: the first is called "Prime Cost," and the second "Factory Overhead." The two constitute the total cost of manufacturing, which is transferred to that part of the Trading Section where purchases of goods would go in a non-manufacturing concern. It is quite needless to add that the terms here applied to the two divisions of the Manufacturing Section are not by any means the only ones used for the same purpose.

Trading and Profit and Loss Statement of the Smith Manufacturing Co.

FOR THE PERIOD ENDING DECEMBER 31, 1913

MANUFACTURING SECTION

Raw Materials, 1/1/13		$3,000.00		Manufacturing Cost, being year's cost of Manufacturing, carried to Trading Section	$80,850.00
Goods in Process, 1/1/13		1,000.00			
Purchases	$60,000.00				
Less Returns	2,500.00	57,500.00	$61,500.00		
Less R. Materials, 12/31/13		6,000.00			
Less Goods in Process, 12/31/13		3,500.00	9,500.00		
			$52,000.00		
Freight Inward			1,000.00		
Factory Labor			18,000.00		
Prime Cost			$71,000.00		
Fuel		$2,500.00			
Foremen's Salary		3,500.00			
Machinery Repairs		700.00			
Factory Expense		1,200.00			
Factory Insurance	$500.00				
Less Unexpired Insurance	250.00	250.00			
Depreciation:					
Plant (10% of $12,000.00)		1,200.00			
Tools (25% of $2,000.00)		500.00			
Factory Overhead			9,850.00		
			$80,850.00		$80,850.00

Trading Section

Year's manufacturing Cost brought down from Mfg. Section			$80,850.00	Sales		$119,150.00
Finished Goods, 1/1/13			5,000.00	Less Sales Returns	$7,000.00	
				Discount on Sales	1,200.00	8,200.00
			$85,850.00	Net Sales		110,950.00
Less Finished Goods, 12/31/13			10,000.00			
Turnover			$75,850.00			
Freight Outward		$1,300.00				
Shipping Expenses		2,600.00				
Salesmen's Commission		7,200.00				
Traveling Expenses		1,700.00				
Advertising		2,000.00				
Warehouse Rent		2,400.00				
Warehouse Ins.	$300.00					
Less Unexpired	120.00	180.00				
Selling Expenses			17,380.00			
			$93,230.00			
Gross profit on Trading carried to Administrative Section			17,720.00			
			$110,950.00			$110,950.00

ADMINISTRATIVE SECTION

Office Expense		$3,100.00	Gross Profit on Trading brought down from Trading Section	$17,720.00
Salary		5,600.00		
Directors' Fees		200.00		
Cost of Administration		$8,900.00		
Gross Business Profit carried to P. & L. Sec.		8,820.00		
		$17,720.00		$17,720.00

PROFIT AND LOSS SECTION

Bad Debts	$500.00		Gross Business Profit brought down from Administrative Section	$8,820.00
Bad Debts written off	450.00	$950.00	Discount on Purchases	800.00
Bank Discount		350.00		$9,620.00
Interest on Loans		1,500.00		
Collection and Exchange		100.00		
		$2,900.00		
Net Business Profit carried to Appropriation Section		6,720.00		
		$9,620.00		$9,620.00

APPROPRIATION SECTION

Reserve for Bad Debts		$2,000.00	Net Business Profit brought down from Profit and Loss Section	$6,720.00
Dividends Payable		2,000.00		
		$4,000.00		
Undivided Profits carried to Surplus		2,720.00		
		$6,720.00		$6,720.00

Comments:

(*a*) *Manufacturing Section.*—A definition of prime cost is readily framed in terms of the items which enter into its computation. It consists of the cost of materials consumed ($52,000.00) plus inward freight and direct or factory wages. All other manufacturing costs are called indirect or overhead charges. If it is clear that this year's depreciation of machinery and tools represents a legitimate cost of the year's manufacturing, then it is probably safe to assume that the rest of this section is understood. As in other situations, it should not be necessary to add that there is no absolute uniformity of arrangement or sequence, so that it will be sufficient, at this stage of the student's progress, to understand thoroughly the function performed by the Manufacturing Section.

(*b*) *Trading Section.*—It should be noticed that the manufacturing cost for the year ($80,850.00) occupies the place filled by "purchases" in a non-manufacturing concern's Trading Section. Quite obviously, the cost of manufacturing may be regarded as equivalent to the cost of goods bought from an outside manufacturer or jobber, and it is so treated. Otherwise, nothing need be added to what has been said of this section in Chapter VII except to call attention to the fact that there exists a very slight difference in the details included. These the student should discover for himself, and, when he does so, let him recall what has been said so often regarding the lack of uniformity in our subject. If this last statement be borne in mind we need not linger over either the Administrative Section or the Profit and Loss Section.

(*c*) *Appropriation Section.*—In presenting our first Trading and Profit and Loss Statement we made no positive statement regarding the ultimate disposition of the year's net profit for the reason that we were not as yet prepared to understand the treatment of reserves. It is easily seen that, of the net profit of $6,720.00, $2,000.00 is retained as a reserve with which to meet possible or even probable bad debts included among Accounts Receivable; $2,000.00 is to be used for dividends, being 10 per cent. on $20,000.00; $2,720.00, the balance, is kept and added to the old surplus from previous years, so that the current surplus is increased to $12,720.00.

(*d*) *Bad Debts.*—In addition to what was said of bad debts in the last chapter, a few words here will not be out of place. The Trial Balance shows that during the year there have been written off from Accounts Receivable (in all probability) bad debts amounting to $500.00. This is shown by the debit to Bad Debts Account. At the end of the year, as stated in the note to the Trial Balance submitted, it is found that $450.00 more of bad debts exist. The Journal entry for this adjustment will be shown in connection with another division of the present chapter, but suffice it here to say that it is exactly like the entry for bad debts occurring during the year. We now have properly to dispose of $950.00 of bad debts. Accountants do not, as a rule, include this loss among trading items on the ground that it is the function of the selling department to get orders, and that it is not responsible for the subsequent collection. If the burden is thus shifted to the "credit" department, there is less logical reason for not including the item among administration costs. At any rate, the student *must* adopt the practice of including this item in the Profit and Loss Section.

(*e*) *Depreciation.*—A few words regarding the depreciation of machinery and tools, and then we shall have concluded this section. The student should notice that, in the case of plant and machinery, for example, 10 per cent. on $15,000.00 is $1,500.00, whereas the depreciation is given as only $1,200.00. Consequently, it must be 10 per cent. on the amount obtained by employing the difference between the asset account and the old Depreciation Account ($15,000.00 less $3,000.00) or $12,000.00. Hence it should be observed that the second of the two depreciation methods illustrated in the last chapter was probably employed,—the "method of fixed percentage on declining value."

B. Balance Sheet

The Balance Sheet about to be presented will differ in no essential features from the one discussed in Chapter VII. The reason for giving it, then, is to be found in the fact that, for a thorough understanding of the subject, many forms will have to be mastered, so that the opportunity for presenting another should not be lost.

To avoid supplementary comment, the reader's attention is directed to the following points:

(*a*) Though the sectionalizing of the items is adhered to, the separate sections are not labeled as in the previous example.

(*b*) Note that the Depreciation Accounts are deducted from the corresponding assets, so as truly to evaluate them.

(*c*) Observe the showing of Accounts Receivable at the net amount, instead of in the following way, as frequently is the case:

Accounts Receivable	$10,000.00	
Less bad debts written off	450.00	
		$9,550.00

(*d*) Insurance items are also shown in this simpler way.

(*e*) Note that Reserve for Bad Debts is treated as a real reservation of profits by being shown among capital and surplus items.

(*f*) Note, finally, how the undivided profit of this year was added to the surplus existing at the beginning of the year, so as to form the present surplus.

Balance Sheet Smith Manufacturing Company

As of December 31, 1913.

Cash		$12,000.00	
Accounts Receivable		9,550.00	
Notes Receivable		24,000.00	$45,550.00
Unexpired Factory Insurance		250.00	
Unexpired Warehouse Insurance		120.00	370.00
Raw Materials		6,000.00	
Goods in Process		3,500.00	
Finished Goods		10,000.00	19,500.00
Real Estate (Factory)		10,000.00	
Plant and Machinery	$15,000.00		
Less Depreciation	4,200.00		
		10,800.00	
Tools	$2,600.00		
Less Depreciation	1,100.00		
		1,500.00	22,300.00
			$87,720.00

Accounts Payable		$23,000.00	
Notes Payable		8,000.00	
Dividends Payable		2,000.00	
Loans		20,000.00	$53,000.00
Capital Stock	$25,000.00		
Less Unsubscribed	5,000.00	20,000.00	
Reserve for Bad Debts		2,000.00	
Surplus:			
Old	$10,000.00		
This year's	2,720.00		
		12,720.00	34,720.00
			$87,720.00

C. Trading and Profit and Loss Account

The process of opening and closing this account, or rather series of accounts, is already familiar to the student.[1] We shall present the necessary Journal entries, without the usual explanations, but shall add a few comments. The entries are numbered so as to facilitate reference to them.

1.	Purchases Raw Materials........	$3,000.00	
	To Raw Materials Inventory...		$3,000.00
2.	Raw Materials Inventory........	6,000.00	
	Returned Purchases.............	2,500.00	
	To Purchases Raw Materials...		8,500.00
3.	Manufacturing Account..........	74,500.00	
	To Purchases Raw Materials...		54,500.00
	Goods in Process (1/1)......		1,000.00
	Freight Inward............		1,000.00
	Direct Labor..............		18,000.00
4.	Goods in Process (12/31).........	3,500.00	
	To Manufacturing Account....		3,500.00
5.	Unexpired Factory Insurance....	250.00	
	To Factory Insurance..........		250.00
6.	Manufacturing Account..........	9,850.00	
	To Fuel......................		2,500.00
	Foremen's Salary..........		3,500.00
	Machinery Repairs.........		700.00
	Factory Expense...........		1,200.00
	Factory Insurance..........		250.00
	Depreciation on Plant and Machinery..............		1,200.00
	Depreciation on Tools......		500.00
7.	Trading Account................	80,850.00	
	To Manufacturing Account....		80,850.00
8.	Trading Account................	5,000.00	
	To Finished Goods Inventory..		5,000.00
9.	Finished Goods Inventory.......	10,000.00	
	To Trading Account...........		10,000.00
10.	Unexpired Warehouse Insurance..	120.00	
	To Warehouse Insurance.......		120.00

[1] Review "Closing Journal Entries," page 176.

11.	Trading Account	$17,380.00	
	To Freight Outward		$1,300.00
	Shipping Expenses		2,600.00
	Salesmen's Commission		7,200.00
	Traveling Expenses		1,700.00
	Advertising		2,000.00
	Warehouse Rent		2,400.00
	Warehouse Insurance		180.00
12.	Sales	8,200.00	
	To Sales Returns		7,000.00
	Discount on Sales		1,200.00
13.	Sales	110,950.00	
	To Trading Account		110,950.00
14.	Trading Account	17,720.00	
	To Administration Account		17,720.00
15.	Administration Account	8,900.00	
	To Office Expense		3,100.00
	Salary		5,600.00
	Directors' Fees		200.00
16.	Administrative Account	8,820.00	
	To Profit and Loss Account		8,820.00
17.	Bad Debts	450.00	
	To Accounts Receivable		450.00
18.	Profit and Loss Account	2,900.00	
	To Bad Debts		950.00
	Bank Discount		350.00
	Interest on Loans		1,500.00
	Collection and Exchange		100.00
19.	Discount on Purchases	800.00	
	To Profit and Loss Account		800.00
20.	Profit and Loss Account	6,720.00	
	To Appropriation Account		6,720.00
21.	Appropriation Account	6,720.00	
	To Reserve for Bad Debts		2,000.00
	Dividends Payable		2,000.00
	Surplus		2,720.00

Comments:

(*a*) Entries numbers 7, 14, 16, 20, and 21 are for the purpose of transferring the balance or result of one account to another.

(*b*) Subtractions or deductions not being permissible in accounts proper, but being shown as additions on the opposite side of any account affected, we must make the adjustment entries shown in numbers 2, 4, 5, 8, 10, and 12. Regarding number 12, though there is practical uniformity in the practice of closing Return Sales into Sales Account, this is not the case with Discount on Sales.[1] Those who object to the entry shown should include the discount among the cost of sales items, and, though the final result would not be changed, the necessary Journal entries would be as follows:

12 (*a*)	Sales	$7,000.00	
	To Return Sales		$7,000.00
12 (*b*)	Trading Account	1,200.00	
	To Discount on Sales		1,200.00

(*c*) Entries numbers 5 and 10 illustrate the form of deferred asset accounts in the Ledger. At the end of the next year these accounts, or such of them as have been used up or have expired, are transferred to their respective divisions of the Profit and Loss account by an intermediate entry of this form:

Factory Insurance	$——	
To Unexpired Factory Insurance		$——

(*d*) Entry number 21 is very frequently shown as three separate entries, but there appears to be no particular reason for such procedure.

(*e*) Entry number 17 deserves some special attention. It should be clear to the student that some individual bad accounts are responsible for the loss of $450.00 shown. These bad accounts are usually listed on a separate sheet called a schedule. Let us assume that the schedule in this case contains the names of the following three concerns:

[1] Others carry it to the same section (or account) as Discount on Purchases.

A Smith & Bros.,	$200.00
L. Longley,	170.00
B. Fiske & Co.,	80.00

If these accounts are to be written off as bad, then they are to be closed in the Sales Ledger, so as to keep effective the control of the Accounts Receivable Account in the General Ledger. Accordingly, the adjustment shown by number 17 would, in actual practice, when entered in a special column Journal, appear thus:

Accounts Payable	General	L.F		L.F.	General	Accounts Receivable
	450 00		Bad Debts			
			To A. Smith & Bros.			200 00
			L. Longley			170 00
			B. Fiske & Co.			80 00
			The above accounts, as per schedule, regarded as worthless, are herewith closed into Bad Debts a/c.			

The student should now carefully post the Journal entries shown, endeavoring to duplicate the following Trading and Profit and Loss Account, which should be compared, item by item, with the corresponding Trading and Profit and Loss Statement. It should be noticed, as was suggested elsewhere, that the *account* is not nearly as clear to the business man as is the corresponding Statement. As a matter of fact, the account in its technically correct form, as shown, is being employed much less frequently now than formerly. Even when the exhibit is called an account, it will often be found that it is really a statement, because deductions are used. The student should be prepared, therefore, to regard the Account and the Statement as *almost* synonymous. The Account is regarded as the technical form, but the Trading and Profit and Loss Statement, and the Income Statement, are the real report forms.

Trading and Profit and Loss Account

For the period ending December 31, 1913

Manufacturing Account

Purchases Raw Materials	J15	$54,500.00	Goods in Process	J16	$3,500.00
Goods in Process		1,000.00	Trading Account		80,850.00
Freight Inward		1,000.00			
Direct Labor		18,000.00			
Fuel	16	2,500.00			
Foremen's Salary		3,500.00			
Machinery Repairs		700.00			
Factory Expense		1,200.00			
Factory Insurance		250.00			
Depreciation on Plant and Machinery		1,200.00			
Depreciation on Tools		500.00			
		$84,350.00			$84,350.00

Trading Account

Manufacturing Account	J16	$80,850.00	Finished Goods	J17	$10,000.00
Finished Goods	17	5,000.00	Sales		110,950.00
Freight Outward		1,300.00			
Shipping Expenses		2,600.00			
Salesmen's Commission		7,200.00			
Traveling Expenses		1,700.00			
Advertising		2,000.00			
Warehouse Rent		2,400.00			
Warehouse Insurance		180.00			
Administrative Account	18	17,720.00			
		$120,950.00			$120,950.00

Administrative Account

Office Expense	J18	$3,100.00	Trading Account	J18	$17,720.00
Salary		5,600.00			
Directors' Fees		200.00			
Profit and Loss Account		8,820.00			
		$17,720.00			$17,720.00

Profit and Loss Account

Bad Debts	J18	$950.00	Administrative Account	J18	$8,820.00
Bank Discount		350.00	Discount on Purchases		800.00
Interest on Loans		1,500.00			
Collection and Exchange		100.00			
Appropriation Account	19	6,720.00			
		$9,620.00			$9,620.00

Appropriation Account

Reserve for Bad Debts	J19	$2,000.00	Profit and Loss Account	J19	$6,720.00
Dividends Payable		2,000.00			
Surplus		2,720.00			
		$6,720.00			$6,720.00

The student will observe that, if the Journal entries shown above had been posted, the result, in so far as it affects the Profit and Loss Account, would not be correctly expressed in the group of accounts shown. As a matter of fact, this group of accounts does not appear in the Ledger, but is intended as a report to the proprietors of the business. The accountant who employs the Journal entries previously discussed does so for the purpose of closing his books. This means that all Nominal Accounts are to be written off. The Profit and Loss group, as it would appear in the Ledger, follows:

MANUFACTURING ACCOUNT

1913					1913			
Dec. 31	Sundries	J15	$74,500.00		Dec. 31	Goods in Process	J16	$3,500.00
31	Sundries	16	9,850.00		31	Trading a/c	16	80,850.00
			$84,350.00					$84,350.00

TRADING ACCOUNT

1913					1913			
Dec. 31	Manufacturing a/c	J16	$80,850.00		Dec. 31	Finished Goods Inv	J17	$10,000.00
31	Finished Goods Inv	17	5,000.00		31	Sales	17	110,950.00
31	Sundries	17	17,380.00					
31	Administrative a/c	18	17,720.00					
			$120,950.00					$120,950.00

ADMINISTRATIVE ACCOUNT

1913					1913			
Dec. 31	Sundries	J18	$8,900.00		Dec. 31	Trading a/c	J18	$17,720.00
31	Profit & Loss a/c	18	8,820.00					
			$17,720.00					$17,720.00

PROFIT AND LOSS ACCOUNT

1913					1913			
Dec. 31	Sundries	J18	$2,900.00		Dec. 31	Administrative a/c	J18	$8,820.00
31	Appropriation a/c	19	6,720.00		31	Dis. on Pur	J18	800.00
			$9,620.00					$9,620.00

APPROPRIATION ACCOUNT

1913			1913		
Dec. 31 Sundries	J19	$6,720.00	Dec. 31 Profit & Loss a/c	J19	$6,720.00
		$6,720.00			$6,720.00

D. Profit and Loss and Income Statement

Of late years another form of Final Statement for industrial and trading organizations has become popular. It is based upon the form commonly employed by railroads and public service corporations, and probably owes its widespread use to the suggestion of Mr. A. Lowes Dickinson, C. P. A., before the American Congress of Accountants some few years ago. The writer does not think that it adds to the clearness of the ordinary Statement form, but it must be presented for the sake of the student, because the university schools of accounts are teaching it, and examiners are asking for it. The reason why practitioners are employing the form, sometimes in preference to the more generally understood older Statement, is because the newer form is easier to execute on the typewriter. It is safe to assert that the Statement we are about to show is the one most frequently employed by American practitioners. We shall proceed to the form itself, and then explain it.

Profit and Loss and Income Statement of the Smith Manufacturing Company

For the period ending December 31, 1913

Sales		$119,150.00
Less Sales Returns	$7,000.00	
Discount on Sales	1,200.00	8,200.00
Net Sales		$110,950.00
Deduct Cost of Manufacturing:		
Prime Cost:		
Raw materials at beginning of year	$3,000.00	
Goods in process at beginning of year	1,000.00	
Purchases of raw materials	60,000.00	
Freight Inward	1,000.00	
Factory Labor	18,000.00	
	$83,000.00	

Less Returned Purchases	$2,500.00		
Raw materials on hand now	6,000.00		
Goods in process now	3,500.00	$12,000.00	
Prime Cost		$71,000.00	
Factory Overhead:			
Fuel	$2,500.00		
Foremen's Salary	3,500.00		
Machinery Repairs	700.00		
Factory Expense	1,200.00		
Factory Insurance	250.00		
Plant & Mch. Depreciation	1,200.00		
Tool Depreciation	500.00		
Factory Overhead		9,850.00	
Cost of Manufacturing for Year		$80,850.00	
Less inventory of finished goods now		10,000.00	
		$70,850.00	
Add inventory of finished goods year ago		5,000.00	
Manufacturing Cost of Sales for Year			$75,850.00
Gross Profits on Sales			$35,100.00
Deduct Cost of Sales:			
Freight Outward		$1,300.00	
Shipping Expenses		2,600.00	
Salesmen's Commission		7,200.00	
Traveling Expenses		1,700.00	
Advertising		2,000.00	
Warehouse Rent		2,400.00	
Warehouse Insurance		180.00	
Cost of Sales			17,380.00
Net Profit on Sales			$17,720.00
Deduct Cost of Administration:			
Office Expense		$3,100.00	
Salary		5,600.00	
Director's Fees		200.00	
Cost of Administration			8,900.00
Gross Business Profit			$8,820.00
Deduct:			
Bad Debts		$950.00	
Bank Discount		350.00	
Interest on Loans		1,500.00	
Collection & Exchange		100.00	2,900.00
			$5,920.00

Add:		
Discount on Purchases.................		$800.00
Net Business Profit................		$6,720.00
Distributed as follows:		
Reserve for Bad Debts................	$2,000.00	
Dividends..........................	2,000.00	4,000.00
Carried to Surplus.................		$2,720.00

Comments:

(*a*) It was said that the terminology and form of Final Statements constituted as confused and non-uniform a chapter as is to be found in the field of accountancy. Among such Statements there is none to which this stricture is applicable in a greater degree than to the one under present discussion. The student should bear this observation in mind as he studies the above form, either here or in other texts, and as he compares the form shown with the corresponding Trading and Profit and Loss Statement.

(*b*) This form commences with the amount of sales, and it should be noticed that the rest of the procedure, in the main, consists of a series of deductions. Just before the net business profit is obtained, discount on purchases is *added.* The heading which sometimes takes the place of "Add:" is "Add other income:".

(*c*) The gross profit of $35,100.00 is surely a misnomer. Forms may be found in which this balance is not labeled at all; in others, instead of deducting the manufacturing cost, it is combined with the selling cost, under the general heading of "Deduct cost of manufacturing and selling," so that the first balance is the gross selling profit. It is suggested that, instead of employing "Gross profit," unless ordered to do otherwise by your instructor or employer, some such phrase as "Excess of sales over manufacturing cost" be used.

(*d*) If it should be deemed desirable to have this statement correspond more closely with the first form, then the deductions from purchases in the manufacturing division, for example, or the turnover in the selling section, or other such practice may be incorporated.

(*e*) The student probably will not need any further help in order to understand this type. He should remember, however, that he has not grasped the subject thoroughly until he can reproduce the form with a clear reason why each item appears in the place given it.

E. Comparative Statements

The practitioner is often called upon to account for the increase or decrease of profits as shown by Statements for two or more years. Essentially, the process is one of combining the two Statements into a single one, called a Comparative Statement. We shall illustrate by means of a very simple case. Following are the Statements which you have been asked to explain or "reconcile":

Balance Sheet of A. B. & Co.

As of December 31, 1912

Cash	$6,500.00	Notes Payable	$10,000.00
Notes Receivable	10,200.00	Accounts Payable	11,700.00
Accounts Receivable	5,000.00	Capital Stock	20,000.00
Merchandise	8,000.00	Surplus	8,000.00
Plant	20,000.00		
	$49,700.00		$49,700.00

Profit and Loss and Trading Statement of A. B. & Co.

For the year ending December 31, 1912

Trading Section

Purchases	$56,200.00	Net Sales	$85,000.00
Less Inventory	8,000.00		
	$48,200.00		
Selling Expenses	20,000.00		
	$68,200.00		
Gross Trading Profit	16,800.00		
	$85,000.00		$85,000.00

ADMINISTRATIVE SECTION

Administrative Expenses	$4,600.00	Gross Trading Profit brought down	$16,800.00
Gross Business Profit, down	12,200.00		
	$16,800.00		$16,800.00

PROFIT AND LOSS SECTION

Bad Debts	$3,800.00	Gross Business Profit brought down	$12,200.00
Discount	400.00		
	$4,200.00		
Surplus	8,000.00		
	$12,200.00		$12,200.00

Balance Sheet of A. B. & Co.

AS OF DECEMBER 31, 1913

Cash	$7,300.00	Notes Payable	$13,000.00
Notes Receivable	6,500.00	Accounts Payable	14,000.00
Accounts Receivable	4,000.00	Capital Stock	20,000.00
Merchandise	10,000.00	Surplus	5,000.00
Plant	24,200.00		
	$52,000.00		$52,000.00

Profit and Loss and Trading Statement of A. B. & Co.

FOR THE YEAR ENDING DECEMBER 31, 1913

TRADING SECTION

Inventory, 1/1/13	$8,000.00	Net Sales	$124,000.00
Purchases	68,000.00		
	$76,000.00		
Less Inventory, 12/31/13	10,000.00		
	$66,000.00		
Selling Expenses	40,000.00		
	$106,000.00		
Gross Trading Profit, down	18,000.00		
	$124,000.00		$124,000.00

ADMINISTRATIVE SECTION

Administrative Expenses.....	$15,800.00	Gross Trading Profit brought down..................	$18,000.00
Gross Business Profit, down..	2,200.00		
	$18,000.00		$18,000.00

PROFIT AND LOSS SECTION

Bad Debts................	$4,900.00	Gross Business Profit brought down..................	$2,200.00
Discount..................	300.00	Net Business Loss, carried to Surplus.................	3,000.00
	$5,200.00		$5,200.00

The problem for solution, let it be remembered, is how to account for the net loss of $3,000.00 during 1913. The Trading and Profit and Loss Statement shows clearly that $3,000.00 was lost, but it may be assumed that A. B. & Co. wish further explanation. A simple solution is to prepare a Comparative Balance Sheet, such as the one shown on the following page.

The object of a Comparative Balance Sheet is not always to account for increases or decreases, as much as to show the changes in the amount of the individual assets and liabilities. For example, some business men wish a Comparative Balance Sheet, instead of an ordinary Balance Sheet, every year. They desire it so as to be able to trace the growth of certain special items. Thus, they learn how the balance of this year's cash compares with last year's balance; whether the outstanding debts in their favor are increasing or decreasing; how much money is being transferred into fixed assets, etc., etc.

Though the Comparative Balance Sheet of A. B. & Co. was prepared in order to account for the loss of $3,000.00 during 1913, notice how it lends itself readily to analysis along the lines suggested in the previous paragraph.

Comparative Balance Sheet of A. B. & Co.

FOR THE TWO YEARS ENDING DECEMBER 31, 1913

	Assets		Liabilities		Increase	Decrease
	1912	1913	1912	1913		
Cash	6,500 00	7,300 00			800 00	
Notes Receivable	10,200 00	6,500 00				3,700 00
Accounts Receivable	5,000 00	4,000 00				1,000 00
Merchandise	8,000 00	10,000 00			2,000 00	
Plant	20,000 00	24,200 00			4,200 00	
Notes Payable			10,000 00	13,000 00		3,000 00
Accounts Payable			11,700 00	14,000 00		2,300 00
Capital Stock			20,000 00	20,000 00		
Surplus			8,000 00	5,000 00	3,000 00	
	49,700 00	52,000 00	49,700 00	52,000 00	10,000 00	10,000 00

Comments:

(*a*) Note that the first and third, the second and fourth, and the fifth and sixth columns are respectively equal to each other in amount.

(*b*) "Increase" and "Decrease" refer to assets. Thus \$7,300.00 of cash in 1913 is an increase of \$800.00 over \$6,500.00, the amount at the end of 1912. Similarly \$13,000.00 of notes payable at the end of 1913 is a *decrease* of \$3,000.00 over the corresponding item for 1912, because the effect of an increase in liabilities is equivalent to a decrease in assets.

(*c*) The decrease in surplus of \$3,000.00 is the difference between the total increase and the total decrease. Inasmuch as the increase in assets was \$3,000.00 less the decrease in assets, the \$3,000.00 is entered in the smaller column, so as to make both equal.

(*d*) Such Comparative Statements are accompanied by a footnote explaining that the Statement discloses an increase in assets of \$7,000.00, but a decrease of \$10,000.00, so that the loss of \$3,000.00 is thereby accounted for.

It is sometimes deemed desirable to establish the correctness of the net loss, not only by means of a Comparative Balance Sheet, as shown, but also by the use of a Comparative Profit and Loss Statement. If the question set for solution included a reference to the fact that it was surprising that there should have been a loss during 1913, because the sales for that year exceeded those of 1912, the second form of Statement rather than the first should be employed. Both may be used, however.

A very simple arrangement, which makes possible a ready comparison between the costs and the proceeds during the two years 1912 and 1913, is shown on page 233.

Note that the difference between the first two columns is exactly equal to the difference between the second two.

Comparative Statement of Costs

	1912		1913		Increase		Decrease	
Inventory at beginning			8,000	00	8,000	00		
Purchases	56,200	00	68,000	00	11,800	00		
	56,200	00	76,000	00				
Inventory at end, deduct	8,000	00	10,000	00			2,000	00
	48,200	00	66,000	00				
Selling Expenses	20,000	00	40,000	00	20,000	00		
Administrative Expenses	4,600	00	15,800	00	11,200	00		
Bad Debts	3,800	00	4,900	00	1,100	00		
Discount	400	00	300	00			100	00
	77,000	00	127,000	00	52,100	00	2,100	00
Increased Cost, 1913	50,000	00					50,000	00
	127,000	00	127,000	00	52,100	00	52,100	00

Net Sales, 1913	$124,000.00
Net Sales, 1912	85,000.00
Increased Proceeds, 1913	$39,000.00
Increased Cost, 1913	50,000.00
Net Decrease, 1913	$11,000.00
Surplus, 1912	8,000.00
Net Loss 1913	$3,000.00

Comments:

(*a*) It should be clear that the function of the above Statement is simply to supplement or corroborate the showing of the Trading and Profit and Loss Statement.

(*b*) Another method employed is to analyze the elements of cost and proceeds into percentage figures showing increases and decreases in somewhat the same manner as already shown. Something analogous to this procedure is reserved for treatment in the chapter on Cost Accounts.

Summary

In the main, this chapter is an expansion of the subject treated of in Chapter VII. A new section of the Trading and Profit and Loss Statement is introduced—the Manufacturing Section. The divisions of the Statement, then, are Manufacturing, Trading, Administrative, Profit and

Loss, and Appropriation. These divisions are subject to change and modification, depending on the nature of the particular business.

The Profit and Loss and Income Statement is also shown. It is based upon the forms employed by railroad and public utility corporations. It is more difficult to state current usage regarding the arrangement and terminology of this statement than of the others, because no two authoritative forms coincide in all details. Hence it must be concluded that, as in other cases, our subject is still in its formative period.

Recently attempts have been made to substitute a Profit and Loss and Income Account for the Trading and Profit and Loss Account. The Journal entries required have not been shown because it is not believed that such usage will become popular.

Simple Comparative Statements are shown. Their chief use is found in testing the report of a single year in terms of previous years. They alse aid in analyzing the progress of a business.

Finally, a few words regarding terminology. Many ac-accountants, and even examiners, refer to Trading and Profit and Loss Statements as Profit and Loss Statements. The term "Trading" is also often omitted from the account. This is unfortunate, and the writer can do no less than to call the attention of the student to the situation as it exists. Another difficulty confronting the student is that he may be called upon to solve Statements in which the information lacks definiteness. To illustrate, how shall rent or expense be treated when it is found in the Trial Balance? If the item specified factory rent or office rent or salesroom rent, the confusion would not exist. In the absence of any additional information, the student should decide the most logical connection in given cases, and then act accordingly. Such judgment comes with experience, but it may be said in passing that items of the kind mentioned are often divided or distributed, in different proportions, among a number of sections. Such divisions, however, need not concern us now because they constitute part of the subject-matter of more advanced work.

EXERCISES

Group One

1. Define prime cost.
2. In terms of the two divisions of the Manufacturing Section where would you place (*a*) Wages, (*b*) Fuel, (*c*) Machinery Depreciation? Give reasons in each case.
3. What is the function of the Appropriation Section?
4. In submitting a report to the president of a manufacturing company, would you prefer to employ a Profit and Loss Account or a Profit and Loss Statement? Give full reasons for your choice.
5. Write an essay of about three hundred words on Terminology and Forms. Treat of the student's difficulties because of confusions in terminology and non-uniformity.

Group Two

1. Prepare a Profit and Loss and Income Statement from Group two, question 1, page 182.
2. From the following data—
   (*a*) Prepare a Trading and Profit and Loss Statement.
   (*b*) Prepare a Profit and Loss and Income Statement.
   (*c*) Prepare Journal entries, with full original entry explanations, for a Profit and Loss Account.

(*d*) Prepare a Profit and Loss Account.

(*e*) Prepare a Balance Sheet.

Trial Balance of the Kent Mfg. Co.

December 31, 1913

Preferred Capital Stock		$10,000.00
Common Capital Stock		10,000.00
Unsubscribed Capital Stock	$2,500.00	
Cash	3,800.00	
Notes Receivable	6,750.00	
Accounts Receivable	12,000.00	
Loans Payable		5,000.00
Accounts Payable		8,750.00
Plant and Machinery	10,000.00	
Depreciation on Plant		2,000.00
Factory Tools	500.00	
Raw Materials 1/1/12	3,000.00	
Purchases	20,000.00	
Returned Purchases		1,000.00
Sales		57,770.00
Sales Returns	1,200.00	
Discount on Purchases		175.00
Discount on Sales	310.00	
Wages	8,200.00	
Factory Insurance	150.00	
Factory Expense	1,300.00	
Fuel	2,200.00	
Factory Salary	3,200.00	
Freight Outward	1,100.00	
Finished Goods 1/1/12	4,000.00	
Selling Expenses	7,300.00	
Commission	1,800.00	
Office Expense	2,150.00	
Office Salary	4,000.00	
Discount	165.00	
Interest on Loans	300.00	
Reserve		1,000.00
Surplus		230.00
	$95,925.00	$95,925.00

Inventories as follows:

Raw Materials, $3,600.00; goods in process, $4,500.00; finished goods, $5,800.00. Write off for bad debts, $470.00. Write off $1,000.00 from plant and machinery for depreciation and $200.00 from tools. Eighty dollars of the factory insurance is still in force. Factory wages accrued amount to $120.00. Reserve $2,000,00, and declare dividends of 6% on the preferred stock, and of 10% on the common stock.

3. Show the Balance Sheet after all the dividends, except those on fifteen shares of common stock, have been paid.

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CHAPTER X

ACCOUNTS OF NON-TRADING CONCERNS

THUS far we have been considering the subject of accounting in its relation to traders. The term "trader" is sufficiently general to include the manufacturer, because the latter produces his goods in order to sell them. But there exist a large number of organizations whose activities are not of the trading kind. These organizations may be divided into two great classes, the first including all those which aim at profit making, while the second includes those not characterized by any mercenary motive. Lawyers, architects, other professional firms, and banks are illustrative of our first division. Municipalities, public hospitals, and social organizations are types of the second group.

It would not harmonize with the general aim of this book to enter into a discussion of the accounting details involved in the bookkeeping of all, or even of any particular one, of the organizations mentioned. However, since we can find something common to all of them, it is quite proper that we direct our attention to these matters. We refer to the "Income and Expenditure" or "Revenue" Account or Statement, and to the "Statement of Receipts and Disbursements" or "Statement of Receipts and Payments."

A. INCOME AND EXPENDITURE

The Income and Expenditure Account, or the Revenue Account, as it is also called, is to non-trading concerns what the Profit and Loss Account is to the ordinary firm. In small organizations it consists of an arrangement whereby all costs or losses of the period under review, *whether actually paid or not,* are placed in one column as a set-off against another containing all "income" for the corresponding period. "Income" is used technically, and denotes *not* receipts but gains and proceeds. The difference between the totals of the two columns represents the surplus or deficit for the period. In larger organizations the account or Statement is subdivided much after the fashion of modern Trading and Profit and Loss Accounts or Statements, so as to disclose the progress of various departments or sections. A few forms will help us to grasp what has been said thus far:

Case 1

Income and Expenditure Account

HINDS, KAHN, AND LAKE, ATTORNEYS

FOR THE YEAR ENDING DECEMBER 31, 1913

Rent	$2,000.00	Fees	$32,000.00
Salaries	1,100.00	Sub-lease of office	300.00
Printing	650.00		$32,300.00
Office Expense	1,040.00		
Mr. Hinds' Allowance	5,000.00		
Mr. Kahn's Allowance	5,000.00		
Mr. Lake's Allowance	2,000.00		
	$16,790.00		
Surplus, carried down	15,510.00		
	$32,300.00		$32,300.00
Mr. Hinds' 1/2 net profit	$7,755.00	Surplus, brought down	$15,510.00
Mr. Kahn's 1/3 net profit	5,170.00		
Mr. Lake's 1/6 net profit	2,585.00		
	$15,510.00		$15,510.00

Comments:

(*a*) The items constituting the above account were obtained from the Ledger. If the books had been kept by double entry the items would have been taken from the Trial Balance modified by "inventory" or footnotes.

(*b*) The allowances to the partners may be assumed to have been according to the copartnership agreement. This agreement was also the warrant for the distribution of the net profit or surplus, as shown.

(*c*) If there had been a Deficit instead of a Surplus, the allowances would probably have to be shown, for they are in the nature of salary and were probably taken in regular or in irregular amounts, but the amount of the deficit would have been charged to each partner's account in the agreed upon proportions.

Case 2

The following is taken from the 1911 Year Book of the New York State Society of Certified Public Accountants:

Statement of Income and Expenses

INCOME		
Members' Dues	$4,131.70	
Interest on Deposits	56.46	
Auxiliary Guilds—Charter Payments and Dues	53.00	
Total Income		$4,241.16
EXPENSES		
American Association—Dues	$826.82	
Office Expense	1,890.59	
General Expenses	140.32	
Entertaining Delegates to American Association Convention	522.36	
C. P. A. Legislation	215.00	
Violations of C. P. A. Laws	100.00	
American Association Year Books	3.00	
Auxiliary Guilds	12.50	
Total Expenses		3,710.59
Surplus for the year		$530.57

Comments:

(*a*) Note that "Expenses" is employed for "Expenditures" in the title of the Statement. The change is undoubtedly for the better, because the more customary and conventional term is too nearly synonymous with disbursements. As will be emphasized later, the expenses for a period are not necessarily equivalent to the disbursements, nor is the income always equal to the receipts. As a matter of fact, there is seldom a coincidence between the pairs.

Case 3

The following form is applicable to a large hospital:

Income and Expenditure Account

1. PRIVATE WARDS

Salaries	$6,500.00	Board	$18,000.00
Food	4,150.00	Registry Fees	50.00
Surgical Supplies	1,800.00	Income from investments	2,600.00
General Expenses	1,450.00		
Repairs	375.00		$20,650.00
	$14,275.00		
Private Ward Surplus	6,375.00		
	$20,650.00		$20,650.00

2. CHARITY WARDS

Hospital:			Fees	$1,012.50	
Salaries	$3,200.00		Deposits forfeited	8.75	
Food	2,600.00		Contributions	2,500.00	
Surgical Supplies	1,500.00		Income from funds	4,000.00	
General Expenses	1,250.00	$8,550.00			$7,521.25
Dispensary:			Charity Ward Deficit		3,038.75
Salaries	$900.00				
Surgical Supplies	750.00				
General Expenses	310.00				
Repairs	50.00	2,010.00			
		$10,560.00			$10,560.00

3. ADMINISTRATION

Salaries	$2,000.00	Cost of Administration	$3,650.00
Office Expense	750.00		
General Expense	900.00		
	$3,650.00		$3,650.00

4. Recapitulation

Charity Ward Deficit	$3,038.75	Private Ward Surplus	$6,375.00
Cost of Administration	3,650.00	Year's Deficit	313.75
	$6,688.75		$6,688.75

Comments:

(*a*) The form just shown is sufficiently complex to serve the student as a model for any work he may be called upon to do. It is not intended to cover all the items which might occur in the final report or Revenue Account of a hospital, but it is offered rather to stimulate thought on the part of the reader.

(*b*) Carefully note the function of the Recapitulation Section. It is a convenient means of summing up the separate showings of a number of departments or sections.

B. Receipts and Payments

This Statement or account is really a summarized Cash Account. The items of receipts and of disbursements for the period covered are grouped under distinct headings. A few examples, each of them corresponding to the same numbered case of Revenue Account, should be helpful.

Case 1

Statement of Receipts and Disbursements
For the year ending December 31, 1913
Hinds, Kahn & Lake

Cash on hand, January 2, 1913		$6,843.00
Receipts:		
Fees	$29,640.00	
Sub-lease of office	325.00	29,965.00
		$36,808.00
Payments:		
Rent	$2,000.00	
Salaries	1,100.00	
Printing	800.00	
Office Expense	1,040.00	
Office Fixtures	1,000.00	
Allowances to firm	12,000.00	17,940.00
Balance on hand		$18,868.00

Comments:

(*a*) By carefully attending to the following observations the essential differences between a Statement of Receipts and Payments and a Statement of Income and Expenditure may readily be seen.

(*b*) The Revenue Account shows fees amounting to $32,000.00, while the summary Cash Statement shows receipts of only $29,640.00. The student may jump to the conclusion that clients still owe $2,360.00 ($32,000.00 less $29,640.00). As a matter of fact, the situation is as follows:

Balance of fees due from 1912	$6,500.00
Earned during 1913 (see Revenue a/c)	32,000.00
	$38,500.00
Collections during 1913 (see receipts)	29,640.00
Balance due from clients (see Balance Sheet, later)	$8,860.00

The student will therefore note that the current year's earnings are shown in the Income and Expenditure Account, while the actual collections are carried to the Statement of Receipts and Payments. He will see, later, that the balance uncollected, $8,860.00, is carried to the Balance Sheet, among the other assets.

(*c*) Three hundred and twenty-five dollars were collected from subtenants. How is it, then, that only $300.00 is shown among income items? The explanation is simple enough. Probably $25.00 (one month's rent) was due on December 31, 1912, and included in *last* year's account, but not collected until some time in 1913, and consequently included among this year's collections.

(*d*) Rent, salaries, office expense, and firm allowances (or drawings) correspond on both Statements, so a discussion of them is unnecessary.

(*e*) How shall we account for the fact that although

$800.00 was paid for printing, only $650.00 is included among the revenue items? The answer is that some of the payment was for a printing bill of last year. There is another solution which the student should work out for himself.

(*f*) The fact that the $1,000.00 spent for office fixtures is not included as an item of "expenditure" in the Income and Expenditure Account should not surprise the student. He should recall an earlier distinction between a capital expenditure and a revenue expenditure. Office furniture represents a change from current or liquid assets to more permanent assets. It is not a loss in the same sense as a purchase of stamps, for example, is. The fixtures, therefore, are carried to the Balance Sheet instead of being shown in the Income and Expenditure Account.

(*g*) The fact that the distribution of profits is not shown in the Summary Cash Account should suggest that they were not distributed. The student should look for some record of them in the Balance Sheet, shown on page 248, following.

Case 2

The following form is also taken from the 1911 Year Book of the New York State Society of Certified Public Accountants:

Receipts and Disbursements

Cash in Banks and on hand April 1, 1910..		$2,001.96
Receipts:		
Members' Dues....................	$3,956.70	
Auxiliary Guild, Pioneer Chapter—Dues....................	33.00	
Interest on Deposits....................	56.46	4,046.16
Total....................		$6,048.12

Disbursements:

American Association—Dues..........	$892.50	
Office Expenses......................	1,890.59	
General Expenses....................	140.32	
American Association Year Books (Net)............................	3.00	
C. P. A. Legislation.................	215.00	
Violation of C. P. A. Laws...........	100.00	
Auxiliary Guilds.....................	12.50	
Entertaining Delegates to American Association Convention............	522.36	$3,776.27
Balance, Cash in Banks and on hand March 31, 1911...................		$2,271.85

Comments:

(*a*) The student should compare each item in the above with the corresponding items in the Statement of Income and Expenses. If he should require guidance in this matter let him employ the comments appended to Case 1.

(*b*) A few remarks regarding nomenclature are very apropos at this point. The first form shown is called by any of the following titles:

1. Income and Expenditure (Statement or Account).
2. Revenue Account.
3. Income and Expenses (Statement or Account).

The first term is the one most frequently employed. The term "expenditure" seems to be unfortunate, however, because it is too strongly associated with actual payment, whereas we already know that it refers to expenses incurred, whether paid or not. Income and Expenses, the title employed by the Treasurer of The New York State Society of Certified Public Accountants, seems to be the most logical one.

The second form is found under the following titles:

1. Receipts and Payments (Statement or Account).

2. Receipts and Disbursements (Statement or Account).

3. Summary Cash (Statement or Account).

The first title is probably used most frequently. There is little ground for employing the second in preference to the first, except for the almost negligible reason that disbursements "sounds" better than payments.

Case 3

The preparation of a Statement of Receipts and Disbursements, which, as we know, is a Summary Cash Statement, is facilitated by a proper arrangement of the Cash Book. In the case of the hospital, for instance, either of two arrangements suggests itself:

A (1) On the receipt side, three columns, headed:
   (*a*) Private Wards.
   (*b*) Charity Wards
   (*c*) General, for receipts not directly related to the first two divisions.

(2) On the payments side a corresponding arrangement.

B (1) The receipt side as outlined.

(2) The payment side subdivided so as to provide for posting of totals and to make unnecessary a recapitulation under account headings. The type shown on page 247 is sufficiently illustrative:

(NOTE: The three divisions correspond to those mentioned in the first case, but are so sectionalized as to facilitate not only posting, but also the preparation of the final summary statement, that is, the Statement of Receipts and Disbursements. The money columns marked "&c." are intended to indicate that additional columns, with suitable captions, are to be added, varying with the particular requirements of different situations.)

Cash Disbursements.

Private Wards			Charity Wards				Administration	
Salaries	Food	&c.	Hospital Salaries	&c.	Dispensary Salaries	&c.	Salaries	&c.

The final report form employed in the accounting under consideration is the Balance Sheet. We shall consider the one supplementary to Case 1.

Balance Sheet of Hinds, Kahn & Lake

DECEMBER 31, 1913

Cash	$18,868.00	Geo. K. Hinds, Capital	$15,255.00
Law Library	10,000.00	J. Kahn, Capital	14,570.00
Office Furniture	3,200.00	S. J. Lake, Capital	11,103.00
Due from Clients	8,860.00		
	$40,928.00		$40,928.00

Comments:

(*a*) The balance of cash agrees with the amount shown by the Statement of Receipts and Disbursements.

(*b*) The law library, valued at $10,000.00, has been taken from the Ledger Account. The fact that no depreciation has been written off is evident from the fact that no such item is mentioned in the Income and Expenditure Account.

(*c*) One thousand dollars' worth of office furniture was bought for cash, it will be recalled. The fact that this item is valued at $3,200.00 in the Balance Sheet shows that an account with this asset had been carried previously.

(*d*) No firm creditors exist, as is shown by the fact that they are not listed among the liabilities.

(*e*) The distribution of profits, instead of being detailed in the Balance Sheet, is incorporated in the accounts of the members of the firm. Accordingly, the accounts of the partners show their respective net interest in the partnership.

A Practical Problem.—In order to be of greater service to the student, we shall present, in some detail, the conditions of an actual situation calling for Statements such as those which have been included in this chapter. Let us assume that we have been called in to prepare the reports for a medical society whose income consists of dues, fines, and interest on deposits and investments, while its expenses are practically all administrative. The Trial Balance, which we have found correct, follows:

Trial Balance of the A. D. Medical Society

JULY 1, 1913

Cash	$20,552.00	
Office Expenses	4,825.00	
Library Expense	1,240.00	
Library	25,000.00	
Building	150,000.00	
Furniture	32,000.00	
Interest from Investments		$4,100.00
Investments	74,000.00	
Mortgage Payable		60,000.00
Interest on Mortgage	1,500.00	
Fines Levied		50.00
Dues Receivable	12,000.00	
Dues for 1913		21,600.00
Salaries	7,200.00	
Publication	4,500.00	
Surplus		247,067.00
	$332,817.00	$332,817.00

An analysis of the books and transactions along the lines of a thorough audit, some of the principles of which the student will find outlined in Chapter XV, reveals the following facts:

1. That the books have been kept by Double Entry, and are now in balance.

2. That when dues became payable the following Journal entry was made:

Dues Receivable	$———	
To Dues for (year)		$———

3. Dues Receivable Account on the General Ledger was the Controlling Account for members' cards. When the foregoing Journal entry was made each member was charged for the amount of his dues.

4. When dues were paid Cash Account was debited (Cash Book entry) and Dues Receivable Account was credited. Members were credited on their individual cards to correspond to the credit to the summary account.

5. Publication Account represents an expense incident to the printing of scientific papers read before the Society.

6. Comments regarding some of the other items are reserved for treatment in connection with the Statements. The remarks which were made appeared necessary because of the probable strangeness of the accounts involved to most students.

The first step in the preparation of the Statements, now that we have gained an understanding of the nature of the accounts with which we have to deal, and after we have established the fact that the books are properly in balance, is analogous to finding "inventory" items in ordinary practice. Accordingly, we have the following facts which we must observe:

1. Office Expense Account does not include sundry bills for telephone use, towel service, etc., amounting to $185.00.

2. Furniture, as appraised, is worth $30,000.00 only, so $2,000.00 must be included among the expense items as depreciation for the period under review.

3. Three hundred and seventy-five dollars is the amount of interest which, it is calculated, has accrued on the investment holdings.

4. Of the dues in arrears, it is estimated that $1,200.00 cannot be collected. The directors decide that this amount shall be written off.

5. One hundred and fifty-five dollars is the amount of salary which is due but not yet payable.

Certain adjustments in the form of Journal entries are required properly to place the details referred to upon the books. These we will not stop to show, assuming sufficient knowledge on the part of the student to prepare them for himself. We may thus proceed to the preparation of the Statements. They will be presented in the following order, each supplemented by brief remarks:

(*a*) Statement of Income and Expenses; (*b*) Statement of Receipts and Disbursements; (*c*) Balance Sheet.

Statement of Income and Expenses

FOR THE SIX MONTHS ENDED JULY 1, 1913

INCOME			
Dues for 1913		$21,600.00	
Fines		50.00	
Interest on Investments	$4,100.00		
Accrued to date	375.00	4,475.00	
Total Income			$26,125.00
EXPENSES			
Office Expense	$4,825.00		
Sundry bills not included	185.00	$5,010.00	
Library Expense		1,240.00	
Furniture Depreciation		2,000.00	
Interest on Mortgage		1,500.00	
Salaries	$7,200.00		
Accrued to date	155.00	7,355.00	
Publication		4,500.00	
Total Expenses			21,605.00
Surplus for the Half Year			$4,520.00

Comments:

(*a*) Note that the current dues are immediately included among the income items. But why is the amount of arrears written off not shown among the expense items? The entry is:

Surplus	$1,200.00	
To Dues Receivable		$1,200.00

The reduction of Dues Receivable and of Surplus is shown in the Balance Sheet. To include the $1,200.00 in the Statement of Income and Expenses would result in an incorrect current surplus.

(*b*) Office expenses amounting to $5,010.00 are shown among the expenses. This should emphasize the point made earlier, namely, that income and expense items incurred, whether actually paid or not, are to be shown in the Statement of Income and Expenses.

(*c*) Very little doubt can exist regarding the sound policy of including depreciation among expense items. Practically the same argument which applies to these items when they occur in trading concerns is operative in the premises.

(*d*) The second comment above should be read in connection with salaries.

Statement of Receipts and Disbursements

Cash on hand Jan. 1, 1913		$25,167.00
Receipts		
Dues	$12,300.00	
Fines	50.00	
Interest on Investments	4,100.00	
Total Receipts		16,450.00
Total		$41,617.00
Disbursements		
Office Expense	$4,825.00	
Library Expense	1,240.00	
Interest on Mortgage	3,000.00	
Salaries	7,200.00	
Publication	3,000.00	
Library	1,800.00	
Total Disbursements		$21,065.00
Balance		$20,552.00

Comments:

(*a*) Dues. This item was taken from its column on the debit side of the Cash Book, and it was confirmed as is herewith shown:

Balance, Jan. 1, 1913	$2,700.00
Less, written off	1,200.00
	$1,500.00
1913 dues	21,600.00
	$23,100.00
Less amount due	10,800.00
Collections	$12,300.00

(*b*) The other items of receipts, and all of the disbursements except for the library, correspond with the amounts shown by the Trial Balance. Accordingly, they need no explanatory remarks.

(*c*) The fact that $1,800.00 was spent and charged to the Library Account, but not included among expenses, denotes that it was probably for the purchase of books. It is thus regarded as a capital expenditure, and is properly not treated as an expense.

Balance Sheet

Assets		Liabilities and Surplus	
Cash	$20,552.00	Office Expense, unpaid	$185.00
Dues Receivable	10,800.00	Salary Accrued	155.00
Investments	74,000.00	Mortgage Payable	60,000.00
Library	25,000.00		
Building	150,000.00	Total Liabilities	60,340.00
Furniture	30,000.00	Surplus	250,387.00
Int. on Investments, Accrued	375.00		
	$310,727.00		$310,727.00

Comments:

(*a*) All of the items not referred to specifically may be traced easily to the Trial Balance.

(*b*) The explanation for dues receivable will be found in comment (*a*) to the Statement of Receipts and Disbursements.

(*c*) Remember that the sum of $2,000.00 was written off from the Furniture Account for depreciation.

(*d*) The surplus is easily established as follows:

Surplus, as per books	$247,067.00
Deduct loss due to uncollectable dues	1,200.00
	$245,867.00
Add surplus for half year	4,520.00
	$250,387.00

It should be observed that surplus corresponds to the "proprietorship" of individual concerns. It is the difference between the assets and the liabilities; it represents the net capital or present worth.

In such non-trading bodies, especially in municipal accounting, we discern a tendency to establish the terms:

1. Revenue Surplus (or Deficit), the difference between the current income and the current expenses.
2. Capital Surplus, the proprietary balance already described.

Summary

Accounting concerns itself not only with the transactions of bodies primarily organized for trading purposes but also with the financial dealings of a large class of institutions, which, for the want of a better term, are called non-trading. These non-trading concerns include lawyers, accountants, engineers,—the division which seeks profit; they also include friendly societies, hospitals, fraternal organizations,—institutions whose aim is not profit-making.

The student is interested not so much in the detailed bookkeeping of such organizations as he is in the Final Statements which are to be prepared. These Statements are three in number: the Balance Sheet, which presents no new features; the Statement of Income and Expenses, corresponding to the Profit and Loss Statement; the Statement of Receipts and Payments, a Summarized Cash Statement. Instead of these last two Statements, we sometimes employ accounts, similarly styled.

We wish to say a final word regarding the terminology employed. These terms are synonymous: income and expenses; income and expenditure; revenue. So also these: receipts and payments; receipts and disbursements, summary cash.

EXERCISES

Group One

1. Define Statement of Receipts and Disbursements.
2. Define Revenue Account.
3. Differentiate between an Income and Expenditure Account and a Receipts and Payments Account.
4. What is the function of a Balance Sheet in a non-trading concern?
5. Discuss the importance of observing the distinction between capital and revenue when applied to the accounting system of a hospital.
6. Draw up a *pro forma* (items with figures omitted) Statement of Income and Expenses and a Statement of Receipts and Payments for any society with whose books you are familiar.

Group Two

1. Complete the following Trial Balance, and from it and the supplementary data prepare the usual Statements:

Trial Balance of the ——————— Society

DECEMBER 31, 1913

L F.		Dr.	Cr.	1913 Transactions Dr.	1913 Transactions Cr.	December 31, 1913 Dr.	December 31, 1913 Cr.
	Cash	$3,510.00		$6,196.00	$3,093.00		
	Dues Receivable	1,040.00		5,600.00	6,100.00		
	Dues				5,600.00		
	Library	1,200.00		400.00	30.00		
	Library Expense			310.00			
	Secretary's Office			200.00			
	Postage			175.00			
	Investments	10,000.00					
	Collection and Exchange			8.00			
	Furniture	3,000.00		1,600.00			
	Telephone			300.00	16.00		
	Interest				50.00		
	Accounts Payable		500.00	1,900.00	1,800.00		
	Surplus		18,250.00				
		$18,750.00	$18,750.00	$16,689.00	$16,689.00		

The following bills have not been entered:

New York Telephone Co.	$45.00
Repairs to Library	37.00

It is decided to remit dues amounting to $160.00, because of financial inability on the part of some members. A donation of $1,000.00 worth of books, made on December 31, 1913, has not been entered.

2. Express your opinion as to the financial condition of this society.

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CHAPTER XI

STATEMENT OF AFFAIRS AND DEFICIENCY ACCOUNT

A.—The Statement of Affairs

Thus far we have been concerned with the accounting of concerns in a flourishing financial condition. We are about to consider affairs when things are not so bright. For example, a business organization may be in temporary straits, or it may be on the verge of bankruptcy. In either case, a Statement corresponding to the Balance Sheet or the Statement of Assets and Liabilities is prepared. This exhibit is called a Statement of Affairs. In addition to the items shown in a Balance Sheet, it makes provision to disclose what the assets will *probably* net if they are disposed of at a forced sale. Similarly, the liabilities are also shown, but it may be said in passing that these "do not shrink." The difference between the assets and the liabilities, as revised, shows the *deficit*,—the amount which the creditors would be unable to collect from the business proper.

I. A simple form, illustrative of a concern forced "to the wall" through inability to collect its just debts, is shown on page 259. Though the student should carefully study it, as well as the comments on pages 260 and 261, it is well to caution him not to regard this form as final. Other forms will be found on pages 262, 265 and 272.

Statement of Affairs of The A. & B. Co.

October 3, 1913

Gross Assets	Assets		Expected to realize	Gross Liabilities	Liabilities	Expected to rank
360.00	Cash		360.00	5,000.00	Notes Payable	5,000.00
6,500.00	Accounts Receivable:			8,000.00	Accounts Payable	8,000.00
	Good	$2,600.00	2,600.00			
	Doubtful	3,200.00	1,200.00	13,000.00		13,000.00
	Bad	700.00				
2,700.00	Notes Receivable		2,700.00			
4,500.00	Merchandise		2,500.00			
1,390.00	Fixtures		390.00			
15,450.00			9,750.00			
	Deficiency		3,250.00			
			13,000.00			13,000.00

Comments:

(*a*) The amounts appearing in the columns headed "Gross Assets" and "Gross Liabilities" are taken from the Ledger. If the books had been kept by Double Entry most of these items would have been taken from the Trial Balance, and with the addition of the proprietorship balance would have constituted the Balance Sheet.

(*b*) Cash remains unchanged, of course. Notes Payable do not and Notes Receivable did not diminish in value, so the student should observe that they are extended at their respective book values. If interest had been accumulating on the notes, then in the "Expected to rank" column the amount should have been increased to the proper figure.

(*c*) Accounts Receivable appear as $6,500.00 in the books. The accountant's analysis, to be described in the chapter on Auditing, discloses that only $2,600.00 represents positively good items. There is doubt regarding customers' balances aggregating $3,200.00, but it is thought probable that $1,200.00 may be collected. The balance of $700.00 comprises sundry accounts which either are long overdue or else refer to bankrupts. Thus, $6,500.00 of book accounts has been reduced to $3,800.00, a loss of $2,700.00, due in part to forced dissolution, for experience proves that it is always relatively more difficult to effect collection upon dissolution than when a concern is pursuing its way in the ordinary course.

(*d*) The difference between the book values of merchandise and of fixtures, and the amounts which they are expected to bring at a forced sale, shows what a sacrifice often results in such situations.

(*e*) Note, now, that the total assets of $15,450.00 have shrunk to $9,750.00. This last amount is all that is available to meet the demands of various creditors with claims aggregating $13,000.00. In other words, creditors can expect only 75 per cent. ($\frac{9,750}{13,000}$) of their claims. In cases of bankruptcy, the bankrupt is usually discharged from the debts which he cannot pay, so that the creditors cannot receive the balance lost.

(*f*) We are now in a good position to realize the function of a Statement of Affairs. It is to show how much creditors may reasonably expect to collect if the business is to be discontinued. But it must not be forgotten that there is no absolute finality about the conclusions contained in the Statement discussed, because the "Expected to realize" column is based upon the belief that the amount shown opposite each item will be the amount of cash actually realized. As a matter of fact the final amount of money available for the settlement of creditors' claims will be more or less than that shown by the Statement itself. Though more money may be collected than shown, due to the conservatism involved in estimating the goodness of claims against others and the value of other assets, it must not be forgotten that heavy legal expenses are usually involved in the process of dissolution, a factor which reduces the final dividend to creditors.

II. We shall now consider a Statement somewhat more complicated by the addition of factors which were not present in the first case. The law divides creditors into two classes: preferred creditors and ordinary creditors. Preferred debts include those due to the state or other public body, as for taxes and assessments, and debts due as wages. It is mandatory that these debts shall be paid in full, if possible, so the sum of such items is deducted from the net assets, leaving the balance of the assets available for distribution among the ordinary creditors. The student should observe how the following form observes the legal requirements just mentioned:

Statement of Affairs

Assets		Nominal Value	Expected to realise	Liabilities		Nominal Value	Expected to rank
Cash		360.00	360.00	Notes Payable		5,000.00	5,000.00
Accounts Receivable:		6,500.00		Accounts Payable		7,000.00	7,000.00
Good	$2,600.00		2,600.00				
Doubtful	3,200.00		1,200.00				12,000.00
Bad	700.00			Preferred Creditors:		1,000.00	
Notes Receivable		2,700.00	2,700.00	Wages and Salary	$700.00		
Merchandise		4,500.00	2,500.00	Taxes..........	300.00		
Fixtures		1,390.00	390.00				
		15,450.00	9,750.00	Deducted from Assets............	$1,000.00		
			1,000.00				
Less Preferred Creditors....						13,00 00	
Net assets available for distribution			8,750.00				
Deficiency			3,250.00				
			12,000.00				12,000.00

Comments:

(*a*) In order to present as many different forms as are possible in the limited space at our disposal, we have introduced this form, which differs slightly from the first one. The two columns on each side are placed close together instead of being separated, and "Gross Assets" and "Gross Liabilities" have been displaced by "Nominal Value." "Book Value" may also be employed, likewise "Nominal Assets" and "Nominal Liabilities," but those shown in the illustrations are most commonly employed by recognized authorities. And while referring to other titles it is appropriate to mention the fact that the reader of English texts will find the asset and liability side of these Statements, as also of ordinary Balance Sheets, transposed. American writers and practitioners, who are under British influence still, will naturally employ English forms. But it is well for the student to know that American practice is rapidly coming into its own, so that he need not hesitate to employ domestic forms, which, in general, have logic, if not age, on their side.

(*b*) Observe how the $1,000.00 representing preferred claims is *not* extended into the "Expected to Rank" column, but deducted from the amount of assets "Expected to realize." In practice, it is customary to label items such as this:

Deducted from Assets as *per contra* $1,000,00

and on the asset side to put:

Less Preferred Creditors as *per contra* $1,000.00

(*c*) In this case the general or ordinary creditors have claims amounting to $12,000.00, which must be satisfied by $8,750.00 of assets. Thus a dividend of 72 per cent. + $\left(\frac{8,750}{21,000}\right)$ is available for them.

(*d*) It is not believed that further help regarding this particular form is necessary. The comments following the first form, except as modified in the second, apply without reserve.

III. As a final step, we shall modify still further the conditions already presented. But in order to make them applicable to the business for which the last two Statements were prepared, let us assume that among the assets are investment holdings amounting to $8,000.00 and that these investments are held as security—as collateral security—by a creditor of whom was borrowed $6,000.00. The student will do well to discover for himself what changes result from the introduction of the items just referred to, though explanations will be found among the comments.

The final Statement of Affairs will be found illustrated on the following page.

Statement of Affairs

Gross Assets	Assets		Expected to realise	Gross Liabilities	Liabilities		Expected to rank
360 00	Cash		360 00		Notes Payable		5,000 00
6,500 00	Accounts Receivable:			5,000 00	Accounts Payable		7,000 00
	Good	$2,600.00	2,600 00	7,000 00			
	Doubtful	3,200.00	1,200 00	1,000 00	Preferred Creditors:		12,000 00
	Bad	700.00			Wages and Salary	$700.00	
					Taxes	300.00	
8,000 00	Investments		2,000 00				
	Less amount to be retained by creditors as *per contra*	$6,000.00			Deducted from assets as *per contra*	$1,000.00	
2,700 00	Notes Receivable		2,700 00	6,000 00	Creditors fully secured		
4,500 00	Merchandise		2,500 00		Securities held	$8,000.00	
1,390 00	Fixtures		390 00	19,000 00	Amount due	6,000.00	
23,450 00			11,750 00		Added to Assets as *per contra*	$2,000.00	
	Less Preferred Creditors as *per contra*		1,000 00				
	Available for distribution		10,750 00				
	Deficiency		1,250 00				
			12,000 00				12,000 00

Comments:

(*a*) The form of this Statement is similar to the first one presented, and it is based upon those most frequently employed.

(*b*) It has been assumed that no book entry had been made when the investment securities amounting to $8,000.00 had been deposited with the secured creditor as collateral for the $6,000.00 loan. For this reason Investments is still charged with $8,000.00 in the "Gross assets" column, but as the creditor (lender) will retain sufficient from the same to reimburse himself, only $2,000.00 will be available for the claims of the general creditor, and so it is the latter amount which has been extended into the "Expected to realize" column. For a similar reason, the $6,000.00 due on the loan, shown as "Creditors fully secured," has not been carried into the "Expected to rank" column. As the secured creditor will keep the $6,000.00 due himself, he will not have to depend upon the balance of available assets. Not only will he be fully reimbursed, but he will actually return $2,000.00, the excess of the value of the collateral over the amount due him. It has been assumed, quite obviously, that the market value of the securities coincides with the book value.

B.—Deficiency Account

When a concern is forced to inform its creditors that it will be unable to pay them in full, it has been shown that it is customary to prepare a Statement of Affairs as a forecast of what dividend they may expect, that is, in the language of the street, how many cents on the dollar probably will be available for them. But there exists an evident moral obligation to show why creditors cannot be paid in full. And the bankruptcy laws provide on legal grounds for a compulsory Statement of the same kind.

This Statement, which may be regarded both as an excuse and as a reason for failure to pay all debts in full, is known as a Deficiency Account. It will be presented most easily in connection with the corresponding Statement of Affairs.

1. This form corresponds to the first Statement of Affairs shown in the last section. We will assume that the concern, a partnership, had been in business but a single year. The books show that the two partners each invested \$2,500.00, that Mr. A. drew for his private use \$540.00, while Mr. B. drew \$200.00, and that \$1,810.00 had been the net business loss for the period. An acceptable form of the Deficiency Account follows:

Deficiency Account

To Mr. A's Investment....	\$2,500.00	By sundry trade losses as per Profit and Loss Account.....		\$1,810.00
To Mr. B's Investment....	2,500.00	By shrinkage as per Statement of Affairs:		
To Deficiency, as per Statement of Affairs..........	3,250.00	Accts. Receivable...	\$2,700.00	
		Merchandise.......	2,000.00	
		Fixtures...........	1,000.00	\$5,700.00
		By personal Drawings:		
		Mr. A.............	540.00	
		Mr. B.............	200.00	740.00
	\$8,250.00			\$8,250.00

Comments:

(*a*) The student's attention probably will be arrested by the use of "To" and "By." No logical argument can be advanced at this late day for the retention of these obsolete prepositions, which at one time were employed universally as the ear-marks of debit and credit. Though American accountants practically have dropped these prepositions in journalizing and posting, they retain them in the Deficiency Account.

(*b*) The student will find that, instead of listing the separate investments, it is customary to group them under the more general term "Capital." It is also more usual to show drawings in a single item.

(*c*) Notice that the shrinkages in the values of the assets correspond to the difference between the total of the "Gross assets" column and the total of the "Expected to realize" column of the Statement of Affairs.

(*d*) The difference between the capital invested ($5,000.00) and the sum of the trade losses, shrinkages, and withdrawals ($8,250.00) is the amount of the deficiency ($3,250.00). It should be observed that this difference is exactly the amount shown by the Statement of Affairs.

(*e*) The Deficiency Account is often shown with the sides reversed, that is, with the losses, shrinkages, and withdrawals on the debit side, and the capital and deficiency on the credit side. No rational basis of choice can be suggested, but the form shown is more popular.

2. The Deficiency Account for the second Statement of Affairs, provided that the conditions submitted for the first account remained unchanged, would be exactly like the one shown. We show it herewith in its more usual form:

Deficiency Account

To Capital Invested	$5,000.00	By sundry trade losses		$1,810.00
To Deficiency as per Statement of Affairs	3,250.00	By Shrinkage as per Statement of Affairs:		
		Accts. Receivable	$2,700.00	
		Merchandise	2,000.00	
		Fixtures	1,000.00	5,700.00
		By Partner's Drawings		740.00
	$8,250.00			$8,250.00

Comments:

(*a*) This account corresponds to the second Statement of Affairs shown, and assumes the conditions outlined in the remarks preliminary to the first Deficiency Account.

(*b*) Comment (*b*) following the first Deficiency Account, has been observed in the preparation of this account.

3. For the sake of variety, let us assume that the third Statement of Affairs referred to a corporation which on July 1, 1913, had just ended the third year of its existence. Its authorized capital was $10,000.00, but only $8,000.00 of stock had been issued, and the same had been fully paid for. The Profit and Loss Statement for the fiscal year ending July 1, 1911, showed a net profit of $1,600.00; that for the period ending July 1, 1912, a net loss of $1,185.00; the last one a net loss of $2,765.00. Dividends amounting to $1,200.00 were declared and paid, July 1, 1911. The reason for the deficiency of $1,250.00 shown by the third Statement of Affairs is to be found in the following:

Deficiency Account

To Capital Invested.........	$8,000.00	By Net Loss, as per Profit and Loss Statement:		
To Net Profit for 1910–1911 as per Profit and Loss Statement....................	1,600.00	1911–1912......	$1,185.00	
To Deficiency as per Statement of Affairs...........	1,250.00	1912–1913......	2,765.00	$3,950.00
		By Shrinkage as per Statement of Affairs:		
		Accounts Receivable.........	$2,700.00	
		Merchandise....	2,000.00	
		Fixtures........	1,000.00	5,700.00
		By Dividends paid.........		1,200.00
	$10,850.00			$10,850.00

Comments:

(*a*) Note that the actual capital ($8,000.00) invested, not the nominal authorization ($10,000.00), is employed.

(*b*) As profits tend to increase capital, they are added to the capital as shown.

(*c*) Dividends, in a corporation, correspond to partnership withdrawals, so the former should be listed as shown.

A Practical Problem Solved.—Before closing this chapter, we shall submit and solve a problem such as the student may be called upon to handle soon. In doing so we are simply following the general scheme of this book to make it of greatest service to the beginner.

M. R. Brown commenced business on August 14, 1912. He did not deem it necessary to ascertain his progress on the following December 31st, so that when you were called in on December 31, 1913, the business had been in existence for about sixteen months. The bookkeeper submitted to you, and you found to be correct, the following:

Trial Balance of M. R. Brown

FOR THE PERIOD FROM AUG. 14, 1912, TO DEC. 31, 1913

Cash	$3,000.00	Sales	$18,000.00
Notes Receivable	4,200.00	Notes Payable	5,000.00
Accounts Receivable	8,000.00	Accounts Payable	20,000.00
Fixtures	2,000.00	M. R. Brown, Capital	7,500.00
Purchases	25,500.00		
Salary	2,500.00		
M. R. Brown, Drawing	1,800.00		
Expenses	2,000.00		
Discount on Sales	350.00		
Interest	150.00		
Commission	1,000.00		
	$50,500.00		$50,500.00

The inventory of merchandise was $10,200.00, the value of the fixtures $1,700.00, and wages amounting to $300.00 had not been paid nor entered. Water taxes amounting to $175.00 had been neither entered nor paid. Mr. Brown directed you to accept all the other accounts as correct, and to prepare a Profit and Loss Statement and a Balance Sheet, but not to close the books.

In compliance with Mr. Brown's instructions, you submitted a Balance Sheet showing a net capital of $1,625.00, and a Profit and Loss Statement showing a net loss of $4,075.00. Your statements astounded Mr. Brown, who thought his business was holding its own. After consulting with you, he decided to accept your suggestion to prepare a Statement of Affairs, and a Deficiency Account, to submit to his creditors. He agreed to pay for your services out of his own pocket, so that the balance of cash should remain intact.

After consultation and analysis, you determined to incorporate in your reports, which were to be prepared for the benefit of the creditors and to be submitted to them for whatever action they deemed necessary, the following additional facts:

1. Of accounts receivable, $1,200.00 represented absolutely bad debts; $2,000.00 comprised doubtful accounts of which it was believed 60% would be collected eventually; balance good.

2. Notes receivable were deemed to be worth their book value.

3. Fixtures would bring no more than $800.00 upon a foreclosure.

4. Merchandise represented marketable goods which were worth fully $7,500.00.

You then prepared the Statement of Affairs and the Deficiency Account shown on pages 272 and 273, respectively, and added a supplemental note that the dividends to creditors, as shown, would probably be materially reduced by the fact that various expenses were connected with the process of dissolution, and these expenses must be paid in full before the general creditors were entitled to their respective shares.

As you study the two Statements, give most attention to the arrangement of the items so as to be able to reproduce them. Mere reading is not sufficient. Make sure that you can assign a good reason for the position which each occupies, and also that you agree with the amounts as listed. You must take nothing for granted.

Statement of Affairs

M. R. Brown, December 31, 1913

Nominal Value	Assets		Expected to produce	Nominal Value	Liabilities		Expected to rank
3,000 00	Cash		3,000 00		Creditors:		
4,200 00	Notes Receivable			20,000 00	Book Accounts		20,000 00
	Good		4,200 00	5,000 00	Notes Payable		5,000 00
8,000 00	Accounts Receivable:				Preferred Creditors deducted from		
	Good	$4,800.00	4,800 00		Assets as *per contra:*		
	Doubtful	2,000.00	1,200 00	300 00	Taxes	$175.00	
	Bad	1,200.00		175 00	Wages	300.00	
10,200 00	Merchandise		7,500 00			$475.00	
2,000 00	Fixtures		800 00				
27,400 00			21,500 00	25,475 00			
	Less Preferred Creditors as *per contra*		475 00				
	Available for unsecured creditors		21,025 00				
	Deficiency		3,975 00				
			25,000 00				25,000 00

Deficiency Account

To Capital at commencement.	$7,500.00	By Sundry Trade Losses as per books			$3,775.00
To Deficiency as per Statement of Affairs	3,975.00	By Shrinkages as per Statement of Affairs:			
		Accounts Receivable	$2,000.00		
		Merchandise	2,700.00		
		Fixtures	1,200.00		5,900.00
		By Drawings			1,800.00
	$11,475.00				$11,475.00

Comments on the Statement of Affairs:

(*a*) The student should not be worried over the fact that some technical features are slightly different from those of the Statements previously submitted. He should recall that a variety of forms may be used.

(*b*) The "Nominal Value" column of assets is exactly equal to the asset side of the Balance Sheet, except for the item of fixtures. This was listed at $1,700.00 on the Balance Sheet, but it is here shown as $2,000.00, because no adjustment entry for depreciation had been made.

(*c*) It may be assumed that the merchandise inventory had been entered in the books.

(*d*) Similarly, it may be assumed that the deferred liabilities had been entered also.

(*e*) The difference between the two Nominal value columns discloses a net capital of $1,925.00 ($27,400.00 less $25,475.00). It will be remembered that the Balance Sheet's net capital was only $1,625.00. How can we account for the difference of $300.00? Fixtures were listed at only $1,700.00 on the Balance Sheet, whereas they appeared at their full book value in the Statement of Affairs.

(*f*) Without taking into consideration the expenses of winding up the business, your report showed a probable dividend of about 84%.

Comments on the Deficiency Account:

(*a*) As in the more theoretical cases we have discussed, this account is intended to explain how it is that Mr. Brown is able to offer only about eighty-four cents on the dollar to his creditors.

(*b*) Note that the sundry trade losses, according to the "books" instead of according to the Profit and Loss Statement, amount to $3,775.00. It should be remembered that the Net Loss ascertained previously included depreciation of $300.00 on fixtures. Inasmuch as the books were not closed nor adjusted, they show the loss given rather than the one of $4,075.00, as per the Profit and Loss Statement.

Summary

A list of the assets and liabilities of a concern either insolvent or in temporary financial difficulties, so arranged as to indicate how much the general creditors may expect upon settlement, is called a Statement of Affairs. It is not prepared unless the business is insolvent, or, if solvent, only when it cannot pay its maturing obligations. Such a situation may exist, for example, when a concern's current liabilities exceed its current assets. This is sometimes the unfortunate situation a bank finds itself in when there is a "run" on it by its depositors. The Statement is prepared to indicate the measure of insolvency.

The form employed by American accountants is based upon that prescribed by the so-called "English Companies Act." It is like a Balance Sheet with two columns on each side. One column on the asset side is for the purpose of listing the nominal or book value of the assets. Another column is employed to show what these assets are expected to produce when disposed of for the benefit of creditors. The first column on the liability side corresponds to the first column on the other side. The second is for the ranking liabilities, that is, for the general creditors. The debts due preferred creditors, instead of being extended into this column, are deducted from the second asset column. Secured creditors are also shown in a special way. If the collateral in the hands of such creditors proves insufficient, then they become general creditors for the balance.

The Deficiency Account is a supplementary form employed in connection with the Statement of Affairs. Its purpose is to explain the deficiency shown to exist by the first Statement. On one side are entered the business losses, the losses due to shrinkages in value of assets and the withdrawals or dividends. On the other side the investment is placed, so that the difference between both sides is exactly equal to the deficiency which is to be explained.

EXERCISES

Group One

1. Clearly distinguish (*a*) Statement of Assets and Liabilities—(*b*) Balance Sheet—(*c*) Statement of Affairs.
2. What is the function of a Statement of Affairs?
3. Define Deficiency Account.
4. Who constitute preferred creditors? How are they shown on the Statement of Affairs.
5. What is meant by "creditors fully secured"? By "creditors partially secured"?
6. How can the accountant know what the book assets will produce when sacrificed?
7. What is the relationship between the Statement of Affairs and the Deficiency Account?

Group Two

1. Prepare a Statement of Affairs and a Deficiency Account for Mr. Black, whose Balance Sheet is shown on page 162. He has been in business two years, for which period his net loss has been $1,800.00 He commenced with a capital of $8,000.00, and his drawings during the past two years amounted to $1,200.00. You are informed that his Accounts Receivable are all good. Accounts Payable include taxes amounting to $600.00. Upon a forced sale, it is expected that the goods on hand will bring $2,200.00, real estate $2,500.00, and machinery $3,500.00.
2. Prepare a Statement of Affairs and a Deficiency Account on the basis of the data furnished by Problem 1, Group two, page 182. Assume the following facts: (*a*) Merchandise will probably bring $4,100.00; (*b*) Office furniture $325.00; (*c*) Accounts receivable consist of $4,300.00 good debts, $2,500.00 doubtful, estimated to be worth 60%, balance bad; (*d*) Notes Receivable are all good.

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CHAPTER XII

REALIZATION AND LIQUIDATION

IN this chapter we shall briefly consider the accounting problems which arise upon the dissolution of a concern. The decision to liquidate may be the result of a desire to discontinue business, or it may be caused by insolvency. We shall give our immediate attention to the problem of liquidating a solvent concern.

I. Let us assume ourselves the accountants for the firm of L. & M., equal partners, who decide to retire from business on April 30, 1913, on which date their condition is disclosed by the following:

Balance Sheet

Cash	$3,800.00	Notes Payable	$10,000.00
Accounts Receivable	16,410.00	Accounts Payable	8,675.00
Notes Receivable	8,900.00	L. Capital a/c	12,500.00
Merchandise	10,000.00	M. Capital a/c	11,200.00
Fixtures	3,265.00		
	$42,375.00		$42,375.00

As it may, and usually does, take quite a considerable period of time to realize on all the assets and liquidate all liabilities, it is customary to delegate the duty of winding up affairs to a committee of one or more. In this case Mr. M. agrees to perform this work without compensation. Though not necessary, it is quite customary to open a new Ledger to which the assets and liabilities are carried. We will assume that this has been done in the case before us. We shall also employ a new Journal and a new Cash Book, both of simple design.

The first entry in the Journal is for the purpose of establishing Mr. M.'s relationship as a sort of trustee. Evidently, he is accountable for the net capital of $23,700.00, that is, for the difference between the total assets ($42,375.00) entrusted to him for collection and realization, and the total liabilities ($18,675.00) which he is to liquidate. If the individual assets and the individual liabilities had been transferred as previously indicated, the following form of Journal entry would probably suit the student:

Assets (itemized)	$42,375.00	
To Liabilities (itemized)		$18,675.00
Mr. M., Trustee		23,700.00

But we have to observe certain technical requirements and accepted usage, so our theoretical entry is modified accordingly. The essential modification consists of the substitution of the Realization and Liquidation Account for that of the assets and the liabilities, so, instead of the entry shown, we have the following two:

Trustee's Summary Cash Account	$3,800.00	
Realization and Liquidation Account	38,575.00	
To Mr. M., Trustee		$42,375.00
Mr. M., Trustee	18,675.00	
To Realization and Liquidation Account		18,675.00

It should now be clear that the Realization and Liquidation Account is a summary account which, on the debit side, shows the total amount of assets to be realized on, and on the credit side the total amount of liabilities to be liquidated.[1] Cash, many accountants hold, should not be carried to the Realization and Liquidation Account, because the trustee must "not realize on it." The student should note that if all our accounts were kept in the same Ledger this book would not be in balance, for the reason

[1] The student should not accept this statement as a final definition of the Realization and Liquidation Account. It will be modified subsequently.

that the assets would be listed twice: once individually and once summarized. The liabilities would be duplicated similarly. Still, this is not strange, for ordinary books would also be out of balance, if, for example, we listed Accounts Receivable and the individual debtors on the same Trial Balance Sheet or entered them on the same Ledger.

Now what entries are required when some of the assets are realized on, that is, when some debtors pay? Just as in ordinary accounting, Cash Account is debited and the Personal Account of the creditor and Accounts Receivable credited. So, also, for the other assets. When all the assets have been collected or converted into cash, and when all the liabilities have been paid or liquidated, the following Journal entries are in order:

Trustee's Summary Cash Account....	$38,575.00	
To Realization and Liquidation Account....................		$38,575.00
Realization and Liquidation Account..	18,675.00	
To Trustee's Summary Cash Account......................		18,675.00

The Realization and Liquidation Account is now closed, and the trustee prepares his final reports to show the record of his stewardship. These are the Realization and Liquidation Account and the Trustee's Summary Cash Account.

Realization and Liquidation Account

OF THE FIRM OF L. & M., SUBMITTED BY M., TRUSTEE, JULY 12, 1913.

Assets to be Realized:			*Liabilities to be Liquidated:*		
Accts. Receivable	$16,410.00		Accts. Payable.	$8,675.00	
Notes Receivable..........	8,900.00		Notes Payable.	10,000.00	$18,675.00
Merchandise...	10,000.00				
Fixtures.......	3,265.00	$38,575.00			
Liabilities Liquidated:			*Assets Realized:*		
Accts. Payable.	$8,675.00		Accts. Receivable.........	$16,410.00	
Notes Payable..	10,000.00	18,675.00	Notes Receivable.........	8,900.00	
			Merchandise...	10,000.00	
			Fixtures.......	3,265.00	38,575.00
		$57,250.00			$57,250.00

Summary Cash Account

SUBMITTED BY M., TRUSTEE, JULY 12, 1913, FOR THE FIRM OF L. & M.

Cash on hand at commencement	$3,800.00	Accounts Payable	$8,675.00
Accounts Receivable	16,410.00	Notes Payable	10,000.00
Notes Receivable	8,900.00	Balance	23,700.00
Merchandise	10,000.00		
Fixtures	3,265.00		
	$42,375.00		$42,375.00

Comments:

(*a*) Note the difference between the Realization and Liquidation Account as it would appear if in the Ledger, and the final form submitted by the trustee. When the student is asked to prepare one of these accounts, it is the latter form which is to be employed.

(*b*) When the balance of cash is turned over to the firm of L. & M., the two accounts which are still open in the trustee's books will be closed. These are the Trustee's Summary Cash Account and the account of Mr. M., Trustee.

(*c*) As it is practically impossible to realize on the assets in full, and as there are always some expenses attached to the winding up, even if the trustee works without remuneration, we shall next consider this problem as modified by these and other practical factors.

II. It is desired to prepare the Realization and Liquidation Account, the Trustee's Summary Cash Account and the final Balance Sheet for L. & M., with these facts taken into consideration:

1. Accounts Receivable produced $15,385.00, the balance being lost in discounts and compromises to hasten settlement.

2. One of the notes in the firm's favor for $1,000.00

is not due until September, and as Mr. M. is willing to accept it in part settlement of his capital account, it was not discounted.

3. Merchandise was sold for $8,750.00 and the fixtures for $2,500.00.

4. Creditors allowed us $1,800.00 on notes and book accounts for prepayment.

5. Expenses of trustee $335.00.

Realization and Liquidation Account

Assets to be Realized:			*Liabilities to be Liquidated:*		
Accts. Receivable	$16,410.00		Accts. Payable	$8,675.00	
Notes Receivable	8,900.00		Notes Payable	10,000.00	$18,675.00
Merchandise	10,000.00				
Fixtures	3,265.00	$38,575.00			
Liabilities Liquidated:			*Assets Realized:*		
Accts. Payable	$8,000.00		Accts. Receivable	$15,385.00	
Notes Payable	8,875.00	16,875.00	Notes Receivable	7,900.00	
			Merchandise	8,750.00	
			Fixtures	2,500.00	34,535.00
			Assets Not Realized:		
Realization and Liquidation Expenses		335.00	Notes Receivable	$1,000.00	1,000.00
			Net Loss, due to Liquidation		1,575.00
		$55,785.00			$55,785.00

Trustee's Summary Cash Account

Balance at beginning	$3,800.00	Accounts Payable	$8,000.00
Accounts Receivable	15,385.00	Notes Payable	8,875.00
Notes Receivable	7,900.00	Expenses	335.00
Merchandise	8,750.00	Balance	21,125.00
Fixtures	2,500.00		
	$38,335.00		$38,335.00

Balance Sheet

Cash	$21,125.00	L. Capital		
Notes Receivable	1,000.00	a/c	$12,500.00	
		Less ½ loss	787.50	
				$11,712.50
		M. Capital		
		a/c	11,200.00	
		Less ½ loss	787.50	
				10,412.50
	$22,125.00			$22,125.00

Comments:

(*a*) Note that though the liabilities were not liquidated in full, they nevertheless were entirely canceled. If the student will remember that the Realization and Liquidation Account is a summary account, no further difficulty will exist. When the individual liabilities are canceled, by payments less than the face of the debts, entries of the following form are made:

1. Payment of a note, less discount;

Notes Payable	$1,000.00	
To Cash		$990.00
Discount		10.00

2. Settlement of a creditor's balance, less discount;

Accounts Payable	$500.00	
To Cash		$485.00
Discount		15.00

Thus it is seen that a debt might be settled in full, even if the payment were for a smaller amount.

At the end of the period, the total cash paid is carried to the Realization and Liquidation Account, by means of an entry such as the following:

Realization and Liquidation
Account $16,875.00
To Trustee's Summary Cash
Account $16,875.00

How the profit of $1,800.00, the difference between $18,-675.00 and $16,875.00, is treated will be explained in (*c*), below.

(*b*) The assets realized are shown in two ways,—those actually converted into cash and those which have not been disposed of. Note that the sum of "Assets Realized" ($34,535.00) and "Assets not Realized" ($1,000.00) is equal to "Assets to be Realized" ($38,575.00), less the amounts lost ($3,040.00).

(*c*) The net loss of $1,575.00 is determined by a Profit and Loss Account on the books of the trustee.

Trustee's Profit and Loss Account

Lost on Accounts Receivable	$1,025.00	Gain on Notes Payable and Accounts Payable	$1,800.00
Loss on Merchandise	1,250.00	Net Loss	1,575.00
Loss on Fixtures	765.00		
	$3,040.00		
Expenses	335.00		
	$3,375.00		$3,375.00

This Profit and Loss Account is closed into the Realization and Liquidation Account, thereby closing the latter also. Then the balance of the Trustee's Account is exactly equal to the Summary Cash Account and Notes Receivable, the amount due to the principals of the business.

(*d*) The trustee's Balance Sheet shows the assets he has on hand, and the respective interests of the partners in these balances. At the same time the Balance Sheet is the one which is prepared for the firm before the actual distribution of the assets.

(*e*) The headings of the three forms are abbreviated purposely. The student may extend them for himself, on the basis of the first forms shown.

III. We have seen how to prepare Realization and Liquidation Accounts for the dissolution of a solvent concern. We must still consider what is to be done when preparing such statements for a bankrupt or insolvent concern. An insolvent concern is one which cannot pay all its debts in full. For the purposes of illustration, let us consider the affairs of M. R. Brown, Chapter XI, page 270.

We shall assume that a receiver was appointed by the court, at the suggestion of the creditors, and that he realized on all the assets and paid the creditors their proper dividends. It is out of the question, of course, to recount the legal steps which are necessary. The student interested in the subject should consult special texts, some of which are listed in the bibliography appended to this chapter.

The books of the receiver show the following facts:

1.	Notes Receivable produced	$4,200.00
2.	Accounts Receivable "	5,900.00
3.	Merchandise "	8,200.00
4.	Fixtures "	500.00
5.	The preferred creditors were paid in full,	375.00
6.	The fees and expenses of the receiver, which were paid, amounted to	1,125.00

7. The balance, amounting to $20,200.00, was distributed among the ordinary creditors, each being given 80⅘% of his claim.

On the basis of the foregoing facts, the receiver prepared the following Realization and Liquidation Account and the following Summary Cash Account:

Realization and Liquidation Account

Assets to be Realized:			*Liabilities to be Liquidated:*		
Notes Receivable	$4,200.00		Preferred Creditors	$475.00	
Accts. Receivable	8,000.00		Ordinary Creditors	25,000.00	$25,475.00
Merchandise	10,200.00				
Fixtures	2,000.00	$24,400.00			
Liabilities Liquidated:			*Assets Realized:*		
Preferred Creditors	$475.00		Notes Receivable	$4,200.00	
Ordinary Creditors	20,200.00	20,675.00	Accts. Receivable	5,900.00	
			Merchandise	8,200.00	
Liabilities Not Liquidated:			Fixtures	500.00	18,800.00
Ordinary Creditors (19 1/5% of claim)		4,800.00	*Net loss*		6,725.00
Receiver's Expenses and Fees		1,125.00			
		$51,000.00			$51,000.00

Summary Cash Account

Balance at start	$3,000.00	Preferred Creditors	$475.00
Notes Receivable	4,200.00	Ordinary Creditors	20,200.00
Accounts Receivable	5,900.00	Expenses and Fees	1,125.00
Merchandise	8,200.00		
Fixtures	500.00		
	$21,800.00		$21,800.00

Comments:

(*a*) It may be more logical to list the "Assets to be Realized" at the values shown by the "Expected to produce" column of the Statement of Affairs, but the way shown is the customary one.

(*b*) Under the laws of the State of New York, a receiver is allowed fees in proportion to the value of the business he is acting for. On the first $1,000.00 he is entitled to 5%; on the next $10,000.00, 2½%; on the balance, 1%. Thus, if he liquidates a business so that he receives and disburses $18,500.00, his fee is determined as follows:

5% on $1,000.00	$ 50.00
$2\frac{1}{2}$% on $10,000.00	250.00
1% on $7,500.00	75.00
Fee	$375.00

(*c*) Note that the receiver has disbursed all the cash received; hence the Summary Cash Account shows no balance.

IV. The student who pursues this subject at greater length will come across more complicated problems. Among these we shall mention, but not solve, a single example. A concern may find itself temporarily embarrassed, so that it cannot meet its immediate obligations. In such cases it is not an unusual proceeding to call a meeting of the creditors for the purpose of deciding what should be done. It may be found that if the business is liquidated immediately a great sacrifice of assets will result. At all events, a desirable customer may be eliminated from the market. It may be proposed to do one of two things:

(*a*) Gradually dissolve the business so as not to throw too much stock upon the market at once; or

(*b*) Continue the business by advancing more credit or extending the maturity of existing obligations, or by both means.

If plan (*a*) is adopted, it is for the purpose of avoiding too great a sacrifice of property, an almost inevitable result of selling under foreclosure. To give effect to this plan a receiver is appointed, and the necessary accounting procedure has been presented. Plan (*b*), while conserving the interests observed in the first method, has the added advantage that it may help to bridge over a temporary disability, and so not only protect the creditors, but put on its feet again a concern ready to dissolve. This plan calls for the appointment of a temporary receiver or creditors' committee.

The accounting under the second plan is somewhat more complicated than that under the first one. It calls for the recording of what are known as "Supplementary Charges" and "Supplementary Credits." The first concerns itself with the costs incident to bringing to completion contracts under way and goods in process of manufacture, and effecting of new sales. Supplementary Credits are the offset to the debits just described, and provide for the showing of the proceeds resulting from the new charges incurred. These supplementary items are detailed in the Realization and Liquidation Account, but to solve a problem involving them would take us into the field of advanced accounting. As the mission of this writing is to place the fundamentals of our subject before the student, he must be referred to some of the texts listed in the bibliography.

V. When an executor or a trustee is appointed to administer an estate, his accounting, though not usually so regarded, is analogous to what has been considered in the present chapter. Though the accounting statements of the executor bear no *prima facie* resemblance to the Realization and Liquidation Account, because of the marked difference in form of presentation employed, it is deemed advisable to call the student's attention to the inherent and essential identity of purpose—a purpose to exhibit one's accountability for the funds of others. We do not propose to present the accounts of executors and trustees, but we do think it worth while to have the student regard these accounts from the point of view already familiar to him.

Summary

The Realization and Liquidation Account is either a Ledger Account or a Final Statement. As the former it is a Summary or Controlling Account, summing up the operations of a receiver or a liquidating committee. The latter is of real present importance to the student, because practically all of his student work concerns itself with the Final Statement.

The Statement form begins with a list of the assets received for the purpose of being converted into cash, and the corresponding lists of liabilities which it is hoped to liquidate. The assets and liabilities are grouped under appropriate titles, the former being placed on the left and the latter on the right. The assets realized on, at the amounts received for them, are next shown on the right hand side. The liabilities liquidated are placed, similarly, on the left side. Expenses incurred are listed beneath the liabilities liquidated. The loss on realization—and there is usually a loss—is added to the right hand side, thus balancing the sides.

It is the practice to list the assets to be realized and the liabilities to be liquidated at their book or nominal values. Hence, the Trial Balance or Balance Sheet, rather than the Statement of Affairs, is employed as a basis. Cash on hand at the beginning of the liquidator's operations is usually excluded from among the assets to be realized, on the ground that cash need not be converted into money.

Such accounts and statements as have been discussed at length in this chapter result from the dissolution of a solvent concern which wishes to disorganize; or result from the winding up of the affairs of an insolvent or bankrupt concern, so as to obtain funds with which to pay off, in part or in full, firm creditors; sometimes, too, when an organization is temporarily embarrassed, to show the operations of a committee appointed to take charge of affairs pending readjustments, or, perhaps, final dissolution.

EXERCISES

Group One

1. What is a Realization and Liquidation Account?
2. By whom is this account prepared, and for what purpose?
3. To what compensation is a receiver entitled for his services?
4. Point out the difference between the Summary Cash Account and the Realization and Liquidation Account. What information do they contain in common? What information cannot be found in both, but only in one or the other?
5. Why are the affairs of a concern temporarily embarrassed, sometimes taken in charge by a creditor's committee? Describe what you believe to be the functions of such a committee.

Group Two

1. To how much fee is a receiver entitled who winds up a business, the assets of which produced $29,674.00, all of which was disbursed, including his own fee?
2. Show the Journal entries on the books of the trustee for the transactions involved in the problem on page 280, section II, of this chapter.
3. Prepare a Realization and Liquidation Account, a Summary Cash Account, and a Balance Sheet for the liquidation committee which has been winding up the affairs of Topper & Hinds (See page 182), Ex. 1).
4. Take into consideration the following facts:
   (*a*) Merchandise brought $5,500.00.
   (*b*) Furniture was sold for $600.00.

(*c*) $1,200.00 was lost on Accounts Receivable.
(*d*) Accounts Payable were settled for $3,-600.00.
(*e*) All other accounts were as shown.
(*f*) Expense of winding up was $1,050.00.

BIBLIOGRAPHY

(*See list at end of Chapter XI.*)

CHAPTER XIII

COST ACCOUNTS—PART I

WE often hear it said that we live in an age of extreme industrial competition. No longer is it possible to continue a business successfully in the absence of positive knowledge regarding its operations. Now that the margin between cost and selling price has been reduced to a mere arithmetical difference,—small, indeed, per unit, but very significant in the aggregate because of volume of trade or production,—it has become necessary to devise records which shall accurately tell the story of a concern's progress. This knowledge is obtained by what is known as Cost Accounts.

It is to engineers rather than to accountants that we are indebted for the development of this branch of our subject. Engineers became interested in such cost computation through their intimate connection with construction and factory contracts. In all fairness to accountants, it should be added that the latter have done much to make the principles of cost accounting more universally applicable, and to make the determination of costs more easily available to all who employ them.

Cost accounting as frequently understood is not cost accounting at all. But we shall present this division of the study in the present chapter, because it is relatively simple and undeniably useful. Moreover, examination boards often speak of the topics about to be presented as real cost accounting, so that the student must familiarize himself with the subject.

A company of bicycle manufacturers desires to ascertain its cost to produce a single wheel during the past year.[1]

They submit to you the following data, from which you are to compile the required information:

Raw materials on hand at beginning of year	$12,500.00
This year's purchases of raw materials	62,500.00
Finished bicycles on hand at beginning of year (1600 @ $30.00)	48,000.00
Productive labor	82,500.00
Manufacturing expenses (coal, repairs, paint, foremen's salary, etc.)	23,000.00
Agents' commission	90,000.00
Expenses of selling branches (rent, salary, etc.)	40,000.00
Selling expenses (salemen's salary, advertising, etc.)	30,000.00
Net sales for year (6,000 wheels)	540,000.00
Raw materials on hand at end of year, at cost	4,000.00
Finished bicycles ready for sale, at end of year, number 800.	
Bad debts among Accounts Receivable	8,000.00
Depreciation of machinery and plant	5,500.00

If it would suffice simply to find the cost to produce a bicycle during the year in question, the required operation would not involve much technical knowledge.

Cost:	
Raw materials at beginning	$12,500.00
Purchases	62,500.00
	$75,000.00
Less Inventory Raw Materials	4,000.00
	$71,000.00
Productive Labor	82,500.00
Prime Cost	$153,500.00
Manufacturing Expenses	23,000.00
Depreciation Plant and Machinery	5,500.00
Cost of Year's Manufacturing	$182,000.00
Machines from last year	48,000.00
	$230,000.00
Less Machines on hand (800 @ $35.00)	28,000.00
	$202,000.00

[1] Adapted from a New York C. P. A. problem.

Agents' Commissions	$90,000.00
Selling Branch Expenses	40,000.00
Selling Expenses	30,000.00
	$362,000.00
Bad Debts	8,000.00
	$370,000.00

(*a*) To find the number of bicycles manufactured during the year:

Number sold during the year	6,000
Number on hand from last year	1,600
	4,400
Number still on hand	800
Number manufactured during year	5,200

(*b*) To find cost of manufacturing a bicycle during the year:

Total number of wheels manufactured.... 5,200
Cost of year's manufacturing............ $182,000.00
∴ $182,000.00 divided by 5,200. or $35.00, the required cost.

(*c*) To find the net cost of a wheel until it has been disposed of finally, that is, the total unit cost, including all charges, during the year:

Total number of wheels sold during the year 6,000
Total costs and expenses during year..... $370,000.00
∴ $370,000.00 divided by 6,000, or $61.67, the required cost.

Comments:

The accountant would hardly submit his computations in the form shown, though the material submitted might actually correspond to his rough draft or working sheet. A form often used is the Profit and Loss Statement with which we are already familiar. We shall show the solution in this way, and we shall then submit another after a more approved type.

Profit and Loss Statement

MANUFACTURING SECTION

Raw Materials, last year's balance	$12,500.00	Cost of year's manufacturing, carried to Trading Section	$182,000.00
Purchases during the year	62,500.00		
	$75,000.00		
Less present inventory of raw materials	4,000.00		
Cost of goods consumed	$71,000.00		
Year's direct labor	82,500.00		
Prime cost	$153,500.00		
Manufacturing Expenses	23,000.00		
Depreciation of Plant and Machinery	5,500.00		
	$182,000.00		$182,000.00

TRADING SECTION

Cost of year's manufacturing, brought down from Manufacturing Section	$182,000.00	Total net sales for year, 6,000 bicycles	$540,000.00
Last year's inventory, 1,600 bicycles @ $30.00	48,000.00		
	$230,000.00		
Less present inventory, 800 bicycles @ $35.00	28,000.00		
	$202,000.00		
Agents' Commissions	90,000.00		
Branch Expenses	40,000.00		
Selling Expenses	30,000.00		
	$362,000.00		
Gross Trading Profit, carried to Profit and Loss Section	178,000.00		
	$540,000.00		$540,000.00

PROFIT AND LOSS SECTION

Bad Debts	$8,000.00	Gross Trading Profit brought down from Trading Section	$178,000.00
Net Profit	170,000.00		
	$178,000.00		$178,000.00

Comments:

(*a*) It is evident that this Statement is practically of the form with which the student became familiar in Chapters VII and IX.

(*b*) But if we recall that the purpose of this Statement is to determine the elements of cost rather than the net profit, we must conclude that it does not furnish sufficient information. The additional matters will receive our immediate attention.

Some Cost Elements.—Among the cost items in which the bicycle manufacturer has a real interest may be mentioned the following:

1. The *prime cost* of each wheel, that is, the cost of the materials consumed and the direct labor employed in the production of a single bicycle.

2. The cost to manufacture a single wheel, that is, the prime cost plus the additional *factory expense, manufacturing expense, factory burden* or *factory overhead* of each bicycle. This *manufacturing cost* is also called the *factory cost* or *cost of production.*

3. The *trading cost* of each wheel, that is, the factory cost plus the additional selling expenses of a single machine.

4. The *total cost* of a wheel, that is, the trading cost plus the additional administrative expenses and miscellaneous expenses (Profit and Loss Section items) of a single bicycle.

At the end of the year the manufacturer finds, in this case, that his net profit is $170,000.00. Let us suppose that his capital is $1,000,000.00, and that the year's profit of 17% on his investment $\left(\frac{\$170{,}000.00}{\$1{,}000{,}000.00}\right)$ is satisfactory. If he wishes to fix his selling price for next year so as to earn a similar return, of what assistance can the accountant be to him?

We have already seen that the number of machines manufactured during the year was 5,200. With this item as our starting point, we may apply it to the manufacturing operations of the previous year in such a way as to be of positive service for succeeding periods. The question has been raised how a given ratio of profit may be assured. We proceed as follows:

(*a*) The cost of materials consumed, as per the Manufacturing Section, is $71,000.00, or ($71,000.00 divided by 5,200) $13.65 + per individual wheel. But the net average selling price of a wheel during the past year was $90.00 ($540,000.00 divided by 6,000). Therefore, in order to realize the profit which was made during the past year, $76.35 ($90.00 less $13.65) should be added to the cost of materials consumed. But as this cost may vary from year to year, or with different grades of bicycles, a percentage figure would be more useful. In this case 559% ($76.35 divided by $13.65) should have been added to the cost of the goods consumed.

The accountant can thus conclude that the manufacturer, trade conditions remaining unchanged, will be safe in fixing his unit selling price at the beginning of the year by adding 559% to the ascertained cost of the material needed to produce a single machine.

(*b*) And, similarly, if he should wish to know how much to add to the cost of materials consumed in order to ascertain the full and complete cost, the figures now at our disposal would be sufficient to answer the question.

Complete unit cost during the past year	$61.67
Cost of materials for a single machine	13.65
Necessary to add to the cost of materials	$48.02

$48.02 is equal to 351% ($48.02 divided by $13.65), and this is the percentage to be added to the cost of goods required for a single machine in order to obtain the complete cost of a unit.

(*c*) Experience teaches us that it is more desirable to base cost computations on prime cost than on cost of materials consumed. We shall accordingly obtain figures corresponding to (*a*) and (*b*) above, based on prime cost of manufacturing. The prime cost of a wheel is easily computed: Total prime cost ($153,500.00) as per Manufacturing Section, divided by number of wheels involved (52,200), or $29.52.

Final selling price of a wheel	$90.00
Prime cost of a wheel	29.52
To be added to the prime cost in order to assure a continuance of last year's rate of profit, other factors unchanged	$60.48

The corresponding percentage figure is 204% + $\left(\frac{\$60.48}{\$29.52}\right)$

(*d*) The final figure which we shall present in this connection will involve the prime cost and the total cost:

Complete final unit cost	$61.67
Prime cost of a unit	29.52
Difference to be added to the prime cost in order to determine final cost	$32.15

$32.15 is 108% + of $29.52, hence, the percentage to be added.

Cost Statement

The obvious usefulness of the information contained in the percentage and other figures derived above need not be elaborated here. The cost accountant supplies them in schedules, but his report often includes a sort of Profit and Loss and Income Statement which, though not nearly as serviceable as the schedules referred to, must be presented to the student so that the latter may become familiar with it.

In studying the form on the following page, it will be of benefit to the student to compare it with the Profit and Loss and Income Statement presented in Chapter IX, page 225. He should observe that it is practically the same, with the addition of a column for percentage figures in the Cost Statement.

Profit and Loss and Income Statement of the Bicycle Manufacturing Co.

FOR THE PERIOD ENDING............

				%
Net Sales for year, 6,000 bicycles			540,000.00	100.0
Less:				
Manufacturing Cost:				
Purchases	$62,500.00			
Balance raw material from last year	12,500.00			
	$75,000.00			
Less this year's balance	4,000.00	$71,000.00		
Direct Labor		82,500.00		
Prime Cost		$153,500.00		28.4
Manufacturing Expenses	$23,000.00			
Depreciation on Plant and Machinery	5,500.00			5.3
Factory Overhead		$28,500.00		
Total Manufacturing Cost		$182,000.00		33.7
Balance of finished goods last year	$48,000.00			
Less this year's balance	28,000.00	$20,000.00		
Manufacturing Cost of Sales			202,000.00	37.4
Gross Profit on Sales			338,000.00	
Selling Cost:				
Agents' Commissions		$90,000.00		
Branch Expenses		40,000.00		
Selling Expenses		30,000.00		
Total Selling Cost			160,000.00	29.6
Net Profit on Sales			178,000.00	
Other Deductions from Income:				
Losses due to Bad Debts			8,000.00	1.5
Net Profit			170,000.00	31.5

Comments:

(*a*) It is necessary to remark, in the same spirit as in similar instances, that this Statement is a *type,*—it is not to be interpreted as the only form employed by accountants.

(*b*) Note that the sum of this year's manufacturing cost of sales (37.4%), selling cost (29.6%), and the other deductions from income (1.5%), a total of 68.5%, plus the net profit (31.5%), is 100%. Slight discrepancies, where they exist, are accounted for by the fact that the percentages are usually "rounded off" in practice.

(*c*) The student should be surprised to find that the percentage computations shown are all based upon sales. The most elementary principles of mathematics would suffice to stamp the practice as incorrect, but we have to deal with a different situation. Mr. Robert H. Montgomery, C. P. A., in his first American edition of Dicksee's *Auditing,* page 71, says, "It is, perhaps, well to note that, in accordance with the invariable custom of traders, percentages of gross profits are based upon the *selling* price of the goods, and not on the cost price."

(*d*) It should be clear that the foregoing Statement is not as useful to the manufacturer as the matters included in the accompanying exhibits. Both, however, should be furnished.

(*e*) Note how finished goods inventories are handled in this problem. Observe how the corresponding items are treated by the York Mining Company, page 301.

Another Problem.—The following Trial Balance has been submitted to us, from which to prepare a Profit and Loss and Income Statement and to deduce such elements of cost as we deem desirable:

Trial Balance of the York Mining Co.

December 31, 1913

Capital Stock			150,000	00
Cash	32,400	00		
Properties	160,000	00		
Plant, Machinery	40,000	00		
Construction	30,000	00		
Mine Supplies	3,500	00		
Royalties	2,100	00		
Wages	36,850	00		
Superintendence	12,000	00		
Repairs	1,200	00		
Oil	4,400	00		
Fuel Consumed	3,500	00		
Mine Expenses	6,000	00		
Selling Commission	3,450	00		
Salesmen's Salaries	3,000	00		
Office Salaries	1,000	00		
Office Expense	1,800	00		
Sales of Coal			143,000	00
Directors' Fees	300	00		
Accounts Receivable	11,000	00		
Accounts Payable			8,500	00
Notes Payable			14,000	00
Mortgage Payable			40,000	00
Interest on Mortgage	2,000	00		
Insurance on Mines	1,000	00		
	355,500	00	355,500	00

The company was incorporated and began business on January 12, 1913. All of the capital stock was subscribed for at par and paid for in cash. Properties refer to the land, the Construction to the buildings, tracks, and timbering. Royalties represent the fees paid to patentees of certain machinery at the rate of three cents per ton extracted. Sixty-five thousand tons of coal were sold at $2.20 per ton, while 5,000 tons are ready for sale. Depreciation at the rate of 10% is to be taken from the plant and the construction. All other items are to be taken as shown.

You, as the accountant, decide to find the prime cost per ton, the manufacturing cost per ton, the total net cost per ton and the net profit per ton.

Profit and Loss and Income Statement of the York Mining Co.

FOR THE PERIOD ENDING DECEMBER 31, 1913

					%
Net Sales, 65,000 tons @ $2 20			143,000	00	100.0
Cost of Mining:					
Wages	$36,850.00				
Royalties, 70,000 @ 3c	2,100.00				
Prime Cost		$38,950.00			
Superintendence	$12,000.00				
Repairs	1,200.00				
Oils	4,400.00				
Fuel Consumed	3,500.00				
Mine Expenses	6,000.00				
Mine Supplies	3,500.00				
Insurance on Mines	1,000.00				
10% Depreciation					
Plant and Machinery	4,000.00				
Construction	3,000.00				
Mining Overhead		38,600.00			
Cost of mining 70,000 tons		$77,550.00			
Less inventory, 5,000 tons @ 1.10		5,500.00			
Cost of mining 65,000 tons			72,050	00	50.3
Gross Profit on Mining			70,950	00	
Cost of Selling:					
Selling Commission		$3,450.00			
Salesmen's Salaries		3,000.00			
Cost of Selling 65,000 tons			6,450	00	4.5
Gross Profit on Sales			64,500	00	
Cost of Administration:					
Office Salaries		$1,000.00			
Office Expenses		1,800.00			
Director's Fees		300.00			
Cost of Administration			3,100	00	2.1
Gross Income..........................			61,400	00	
Other Deductions:					
Interest on Mortgage			2,000	00	1.4
Net Income........................			59,400	00	41.6

SCHEDULE COST STATISTICS

1. *Prime cost per ton:*		
Prime cost of 70,000 tons		$38,950.00
Prime cost per ton		$.55+
2. *Cost to manufacture or mine one ton:*		
Total cost of mining 70,000 tons		$77,550.00
Total cost of mining one ton		1.10+
3. *Total net mining cost per ton:*		
Cost to mine one ton		$1.10+
Selling expenses of 65,000 tons	$6,450.00	
Administrative expenses, etc., of 65,000 tons	3,100.00	
Other cost of 65,000 tons	2,000.00	
Total other cost of 65,000 tons	$11,550.00	
Additional other cost per ton		.18—
Total cost per ton		$1.28+
4. (*a*) *Net profit per ton:*		
Average selling price per ton		$2.20
Average total cost per ton		1.28+
Average net profit per ton		$.92—
(*b*) *Proof:*		
Net profit on 65,000 tons sold as per Profit and Loss and Income Statement		$59,400.00
Average net profit per ton		$.91+
(*c*) *Additional Proof:*		
41.6% of $2.20 (net profit per ton on selling price)		$.91½

Comments:

(*a*) The form is slightly different from that of the bicycle problem, but the underlying principles are identical.

(*b*) Observe that "cost of mining" has been substituted for "cost of manufacturing."

(*c*) Fewer percentage figures have been given in this problem than in the first one, but the number may be increased or decreased to suit the requirements of any given situation.

(*d*) By deducting the manufacturing cost of the unsold coal from the total cost of mining as shown, the mining cost of the coal sold during the year is readily obtained.

Summary

Large scale production, keener competition resulting in smaller margins of profit and a desire for more accurate knowledge have been the forces making for the information included in so-called cost accounting. Thus far, the work consisted of arranging the items of a Profit and Loss and Income Statement so as to disclose the percentage of certain factors to the total sales and unit figures to serve as a basis of future costs or comparisons. That there is much more to our subject will be made evident in the next chapter, which will also contain a bibliography and questions relating to the present discussion.

Bibliography

(*See list at end of Chapter XIV.*)

CHAPTER XIV

COST ACCOUNTS—PART II

A critical analysis of the utility of Cost Accounts, based entirely upon what has been presented in the previous chapter, would not be complimentary to the energy of those who argue in favor of such accounts. For after all is said, the information offered as a result of the work which has thus far engaged the student's attention is in the nature of a *post mortem* statement. The conclusions are for a past period, and, if operations have been conducted at a loss, a full year might have elapsed before the state of affairs would have been brought to the attention of those most interested and concerned. Surely, some more timely warning should have been available.

The cost accounting about to be discussed and illustrated—indeed, the real cost accounting—is quite different. We shall consider the problem in connection with the affairs of (1) a concern manufacturing a single product, and (2) a concern manufacturing a number of products.

1. Manufacturer of a Single Commodity.—An example of such a manufacturer is the producer of a single patented article such as a campaign button, or of an unrefillable bottle. The needs of a concern of this kind are simple enough. The only reason why the Summary Statement employed in the last chapter will not suffice is because it is desirable to establish a more immediate and a more positive control over operations than that furnished by an annual, or even a semi-annual review. In order that the efficiency of the factory shall be tested frequently, and that it shall thus be maintained at its highest point, it is necessary that information regarding its operations shall be kept currently and in such a way as to adapt it to easy and quick tabulation.

Later, we shall present a complete system for a small plant. Here it will be enough to mention the essentials. And inasmuch as we have the factory operations alone in mind, though Cost Accounts also include the work of the selling office and administration departments, we here concern ourselves with the items usually embodied in the Manufacturing Section of a Profit and Loss Statement. Thus, it is necessary to provide for the obtaining of the amount of direct wages and the value of materials consumed during the period under review, and also of the cost of the factory burden or overhead for the same period. This is accomplished by the same means as previously illustrated. The unit costs, too, are obtained as already shown, and it is by a comparison of similar units for different periods that the efficiency in question is gauged.

2. Manufacturer of Several Units.—The simplest illustration is a builder or contractor who wishes to know what each job or contract has cost, principally to serve as a guide for future estimating. Another illustration is a manufacturer of bicycles who produces, say, three grades, or a coal mine which produces coal of several sizes.

In such cases as these, though the principles are similar to those involved in the first case, the application is somewhat more complicated. We shall discuss these applications at once, and later illustrate them:

(*a*) The exact cost of material consumed must be positively available.

(*b*) Direct wages must be ascertained. Records must be kept so that it shall be definitely known how much has been paid in wages on account of each job, contract or product.

(*c*) The factory burden or overhead, those items of cost which cannot be separated as accurately as the elements included in (*a*) and (*b*), must be apportioned.

(*d*) The sum of (*a*) and (*b*) and (*c*) for each job, contract or product, results in the Production (or Manufacturing) Cost. If it is desired to obtain the total or final cost of the unit, a procedure similar to that necessary for the establishment of (*c*) is employed whereby to apportion the selling, administrative, and other costs.

As it is customary in cost accounting to assign a number to each unit of work, the following final sheet will serve to present the result of a cost system. It is the simplest form:

COST SUMMARY

No. 46 (500 coats)

	Total Cost	*Unit Cost*
Materials consumed	$469.54	
Wages	1,063.18	
Factory burden apportioned	254.50	
Manufacturing cost	$1,787.22	$3.57+
Selling expenses apportioned	154.12	
Other expenses apportioned	108.66	
Final cost	$2,050.00	$4.10

Remarks:

The steps which made possible the preparation of this summary cost sheet of five hundred coats, together with the forms employed, will be presented in connection with a simple cost system to which the student is directed to give immediate attention.

Cost System for a Manufacturer of Leather Bags

A.—The Situation.—The York Company manufactures leather suit cases for the trade, that is, it supplies dealers exclusively. At the present time the product is so well systematized that there are eleven numbers corresponding to the standard cases manufactured by this company. The selling price is practically fixed, though it has been raised several times during the past few years because of the increased cost of materials and labor. We have chosen their cost accounting system for study because, with slight changes, it lends itself to elementary treatment such as is required by the beginner.

B.—The Aim of the System.

I. To keep current account of the factory operations.

II. To tabulate the results monthly.

III. To furnish tests of relative and of absolute efficiency.

IV. To keep books subject to quick and accurate review; hence, double entry books.

C.—The System in Detail.

I. The general books.

A good system of Double Entry Bookkeeping, such as we are already familiar with, is in operation. The Trial Balance prepared monthly, together with the means of ascertaining inventories readily, and depreciation which may be calculated without much effort, furnish the necessary facts from which a monthly Balance Sheet and a monthly Profit and Loss and Income Statement are prepared.

II. Loose leaf factory books are kept with each style of case manufactured, and summary sheets and charts are kept so that the efficiency previously referred to is readily ascertained.

III. We are now ready for the details connected with the transactions of a single month. To simplify matters, let us assume that the concern has just begun business, and that the system we are about to study has just been installed. The entries for the investment, for the purchase of machinery and the ordinary routine with which the student may safely be considered familiar, are purposely omitted.

(*a*) *Purchases.*

1. *Leather.*—The leather employed is of three grades (weights), labeled for the sake of convenience L. (*a*), L. (*b*)., L. (*c*). As each purchase is made it is entered in a Purchase Book, and subsequently posted to the debit side of the General Ledger Account, Materials Purchased. With the corresponding entry for this and for similar accounts we shall not concern ourselves. As each purchase is made, it is entered on a sheet of a loose-leaf Inventory Book, essentially of the form shown on the following page.

Explanation of Form: As goods are received they are entered in the first division of the sheet. The order number of this section refers to the order for the purchase of the goods in question. Goods are issued upon proper requisitions to the stores keeper, the custodian of supplies. This requisition, which will soon be shown, is entered in the second division. Order number, here, refers to the requisition number. The difference between the "Quantity" columns, in this case, shows the number of pounds of leather of grade (*a*) on hand. This balance is obtained monthly, or at more convenient periods, and serves two purposes. It is the inventory, of course, and it enables the stores keeper to comply with his instructions regarding the minimum quantity to have on hand. The price of the inventory items is placed at cost, because in this business the fluctuations are slight within short periods of time.

The stores keeper issues supplies upon requisition only. This requisition specifies the quantity desired, and the specific purpose for which it is required. The stores keeper, after filling the order, makes the proper entry in his Stores Record sheet or Inventory sheet, places the cost of the goods

STORES RECORD

Description: Leather (*a*)
Never have on hand more than 3,500 lbs.
Order when supply falls to 500 lbs.

Receipts					Issued					Balance	
Date	Order No.	Quantity	Price	Cost	Date	Order No.	Quantity	Price	Cost	Quantity	Cost

upon the requisition, and forwards the latter to the office for proper recording. A simple form or requisition is the following:

REQUISITION No. ....

Deliver to ....
(here insert department)

for Job No. .... the following goods.

Quantity	Description	Price	Cost

O. K'd. by ....

....
Sup't.

When these requisitions arrive at the office they are tabulated in a Materials Record Book, so that each job—in this case, each kind of bag manufactured—may be charged with the amount of materials consumed. The Materials Record Book is of the following form:

MATERIALS RECORD

Req. No.	Charge to Job No.											
	1	2	3	4	5	6	7	8	9	10	11	12

Explanation of form: The cost of materials issued for each job is extended into its own column. The spaces to the right of column number twelve are reserved for special contracts and for additional styles of bags which it may be deemed desirable to add to the present stock. Once each month the columns are totaled so as to ascertain the total cost of materials consumed by each job. In order to do away with the need of inventorying raw materials in the factory, it is provided that toward the end of each month departmental superintendents shall order no more goods than are needed for their immediate requirements.

At this time, too, the following adjustment entry is in order:

Manufacturing Account	$——	
To Materials Purchased		$——

The amount entered is the sum of the columns of the Materials Record Book, thus representing the total of all requisitions on the stores keeper for the month. The balance of the Materials Purchased Account, assuming that the returned purchases are credited to it, represents the value of the materials in charge of the stores keeper. This account is also the Controlling Account of the Stores Record, because the sum of all the balances of all the various inventory, or record, sheets, must equal the balance of the Materials Purchased Account in the General Ledger.

Thus far we have shown no specific detailed cost accounting. Each month, as a result of the entries in the Materials Record Book, transfers are made to the proper *cost sheets* of the Cost Ledger. These sheets are illustrated on the following page. The explanations which are added should make them clear to the student. It need scarcely be said that the form shown is not the only one employed for the purpose of obtaining similar information.

Cost Sheet

Job No. **Year**

Description **Price**

Materials consumed	Wages paid	Factory Overhead	Date	Quantity produced	Unit cost
			Jan.		
			Feb.		
			Mar.		
			Apr.		
			May		
			June		
			July		
			Aug.		
			Sept.		
			Oct.		
			Nov.		
			Dec.		
			Year		

Remarks:

1. *Explanation.*—The first column is the one to which transfers or postings are made once each month from the Materials Record Book. Thus, if the illustration was of the Cost Sheet for Job No. 1, the total of the first money column of the Materials Record Book would be posted on the line for the proper month. The use of the other columns will be explained shortly.

(*a*) *Other Materials.*—Thus far, we have been discussing the treatment of leather, the major material employed in the manufacture of bags. But all that has been written is equally true of the other materials *directly* employed and consumed in the manufacture of this product. General supplies, such as belting, cotton waste and oil, are charged to Supplies Account, the treatment of which will be discussed later.

(*b*) *Wages.*—We have to consider two kinds of wages, direct or productive, and indirect or unproductive. Wages is the general term applicable to the remuneration paid to all those connected with the factory. Direct or productive wages is reserved for the payment to those workers who are directly or immediately concerned in the production of the factory output. Indirect or unproductive wages is employed in connection with the payment to engineers, watchmen and foremen,—men less immediately and intimately concerned with the product of the factory.

The factory payroll is ascertained in the usual way. Each worker registers the time of his daily arrival and departure on a time clock, and these "time cards" are the basis of the payroll. To simplify accounting, the men are paid twice each month, so that two payrolls constitute the number which has to be apportioned each month among the various job cost sheets.

A single check is drawn for each payroll, the entry in the Cash Book resulting in a charge to Wages and a credit to Cash. The foreman in charge of each department is required to indicate upon the time cards of the men under him the jobs to which the wages paid should be apportioned. Some slight complications arise because men are often engaged upon several jobs during the course of a fortnight. The Pay Roll Book is so ruled that it is convenient to separate the pay of each man into the columns headed by the numbers of the respective jobs. The difference between the totals of these separate columns for the fortnight and the total factory payroll for the corresponding period represents the unapportioned wages, that is, the unproductive or indirect wages for the period.

Each fortnight the totals of the separate columns are posted to the General Ledger by means of the following Journal entry:

Direct Wages	$——	
To Wages		$——

Once each month the Direct Wages Account is closed into Manufacturing Account, in a manner similar to that which obtains in the case of Materials Purchased Account:

Manufacturing Account	$——	
To Direct Wages		$——

When this entry is made, there is posted to the proper individual cost sheets the sum of the two fortnightly totals of the separate job columns corresponding in number to the cost sheet. It should be clear, then, that at this point the aggregate sum of the first two columns of all the cost sheets for any month must equal the total of the Manufacturing Account for the same month.

(*c*) *Overhead or Burden.*—Now it is necessary to close into an account called on the books of the concern we are discussing Manufacturing Overhead all other accounts representing costs or expenses of production. It is first necessary to evaluate each account, either by writing off depreciation or by entering inventories, as was fully explained and illustrated in Chapter VII, pages 176 and 219. Assuming that this has been done, an entry like number 6, page 219, must be made. The chief difference exists in the debit; instead of charging Manufacturing Account, Manufacturing Overhead is employed. Among the credit items, Wages Account takes the place of Foremen's Salary, thus closing the Wages Account, most of which has previously been transferred to the Direct Wages Account.

Manufacturing Account will now be charged with the total cost of the manufacturing for the month. In order to preserve its function as a controlling account of the Cost Ledger, the total of the month's overhead charges must be divided among the jobs concerned. The problem of correctly and scientifically apportioning this burden constitutes the most difficult chapter in cost accounting. It is not our purpose to summarize the various methods which are employed, nor to present the controversial matter which has been born of the problem.

The author believes that the best interests of the beginner will be observed by presenting one theoretical and three practical methods of apportioning the factory burden. To make the problem concrete, let us assume that the overhead for January was $4,800.00, and that a summary of the Cost Ledger is contained in the tabulation shown on this page.

Plan No. 1: This plan is presented so as clearly to place the problem before the reader. It is theoretical, and is *never* employed. Inasmuch as the amount of the overhead is $4,800.00, and, as twelve jobs are involved, one-twelfth of $4,800.00, or $400.00, should be apportioned to each job. *Once more, this plan is absolutely incorrect.*

Plan No. 2: There is *some* connection between the cost of materials consumed and the total cost of the job. There is also *some* connection between the overhead charges and the cost of the job. Though the conclusion is logically absurd, this premise is frequently made the basis of the apportionment. According to this plan, there would be transferred to each job such a part of

Job Nos.	Materials	Wages	Total
1	6,800.00	9,300.00	16,100.00
2	5,400.00	2,700.00	8,100.00
3	1,100.00	1,300.00	2,400.00
4	700.00	1,000.00	1,700.00
5	2,400.00	3,800.00	6,200.00
6	950.00	1,250.00	2,200.00
7	1,200.00	2,100.00	3,300.00
8	1,000.00	1,250.00	2,250.00
9	200.00	450.00	650.00
10	3,100.00	5,000.00	8,100.00
11	1,850.00	2,400.00	4,250.00
12	1,700.00	2,800.00	4,500.00
Total	26,400.00	33,350.00	59,750.00

the overhead as one job's cost of materials consumed bears to the total cost of materials consumed for the month. Specifically, there would be apportioned to

Job No. 1, $\frac{6,800}{26,400}$ of \$4,800.00 or \$1,233.33

and to Job No. 2, $\frac{5,400}{26,400}$ of \$4,800.00 or \$981.81

and so on.

Plan No. 3: On the basis of reasoning quite analogous to that of Plan 2, a relation is established between direct wages and overhead, and the apportionment is according to the ratio of each job's direct wages to the total of direct wages. We obtain, accordingly, for

Job No. 1, $\frac{9,300}{33,350}$ of \$4,800.00, or \$1,340.54

and so on.

Plan No. 4: This method combines plans three and four. The overhead is divided on the basis of the prime cost, that is, of the sum of materials consumed and direct wages paid. To each job there is carried the proportion which its prime cost is of the month's total prime cost. Thus we obtain for

Job No. 1, $\frac{16,100}{59,750}$ of \$4,800.00, or \$1,294.47,

and so on.

Observation: The purpose of each of these plans is to divide equitably those costs and expenses of the factory of which it could not be said that they belonged to any one specific job. Cost accountants attempt to minimize the problem by reducing the overhead to a minimum. In other words, they attempt to provide means for ascertaining regarding the various factors of the factory burden just what amount is chargeable to each job. They also attempt to devise workable plans for the apportioning of the necessary residue. For more light on both of these matters, the student must be referred to special books on cost accounting.

(*d*) *The Utility of the System.*—It remains to be seen of what use the cost system we have been studying is to the manufacturer. First it must furnish him with the unit cost of the articles he produces. The student is directed to the cost sheet of the Cost Ledger (page 312) where this information is readily obtainable. Each month the number of bags produced is entered in the "Quantity Produced" column of the proper Cost Sheet. If, for example, during the month of January there were produced 6,200 bags, called Job No. 1, then the cost to manufacture a single bag during the month would have been shown in the unit cost column.[1] By subdividing the columns headed "Materials Consumed," "Wages Paid," and "Factory Overhead," the unit cost of these elements could easily be computed. Percentage columns might also be added so as to furnish additional information.

Besides ascertaining the unit cost of production, it was pointed out that cost accounting could furnish efficiency tests. Does the present system do so? It surely does supply data regarding the cost at monthly intervals. In this way any increase in production cost would be detected immediately and an investigation of the cause instituted. Moreover, the very same data could be employed to test the relative efficiency of departments. Thus, a positive or a relative reduction of cost in one department could be used as a means of emulation on the part of those in charge of other departments.

In connection with this matter of efficiency, the charts or graphs which were described in Chapter II should prove useful. They could be employed to depict the trend of production cost of each commodity produced over a period

[1] The sum of the first three columns divided by 6,200.

of years and in this way help to point out tendencies much more clearly than the corresponding figures.

Summary

Chapter XIII served to introduce the student to the subject of Cost Accounting. The present chapter shows that, instead of employing the operation of a past year so as to obtain *post mortem* facts, it is possible to create a system whereby contemporaneous information of highest importance is made available. A Cost Ledger, based upon the principle of Double Entry Bookkeeping, and hence subject to ready checks and mathematical proofs of correctness, furnishes contemporaneous data of unit costs and discloses absolute and relative efficiency of the various factory activities.

Though manufacturing costs only were treated of in the present chapter, the principles employed might readily be extended to include selling, administrative, and other costs. If this last information were deemed desirable, then graphs or charts might be plotted so as to picture the tendencies of all branches of the business.

A very important factor was found tending to vitiate or lessen the value of the cost data obtainable. This element concerned itself with the problem of apportioning the overhead or burden. Though it is comparatively easy to ascertain the amount of direct labor employed and the cost of materials consumed on the production of a certain commodity, and even quite accurately to record the machine time utilized, it is practically an impossible task to state definitely just how much of the foreman's time or the engineer's fuel or the factory's rental was used up by a certain commodity produced. It is because of the existence of this composite residue—factory burden, or factory overhead, as it is often termed—that various plans for apportioning it have been suggested. The most elementary methods have been presented, and more complicated ones await the student in his advanced studies.

Should it be desired to ascertain selling and other costs, the problem of distribution or apportionments becomes more complicated still. And this for the reason that there will then be found more than the factory burden to divide equitably. This additional element is sometimes referred to as general overhead or general burden.

EXERCISES

Group One

1. What is the purpose of Cost Accounts?
2. Distinguish between *post mortem* and contemporaneous Cost Accounts. (Prof. John R. Wildman, C. P. A., New York University School of Commerce, Accounts and Finance, calls the first Accounting Cost System, and the other Factory Cost System.)
3. How is the amount of direct wages ascertained?
4. Describe the Stores Record. What are its functions?
5. Show how the Materials Purchased Account and the Manufacturing Account of the General Ledger are controlling accounts of the Cost Ledger.
6. What is Manufacturing Overhead? How is it apportioned?

Group Two

1. The following problem is based on a recent examination question set by the New York C. P. A. examination board:

   The output of the Pennsylvania Coal Co. for 1911 was 100,000 tons, and the Trial Balance at the end of the year was:

Trial Balance

Plant and Machinery	$50,000.00	Capital Stock	$80,000.00
Construction	10,000.00	Sales	158,500.00
Notes and Accounts Receivable	38,000.00	Notes and Accounts Payable	18,000.00
Cash	15,000.00		
Mine Supplies	6,000.00		
Inventory Coal, 1/1/1911	12,000.00		
Wages	60,000.00		
Salaries (office)	13,000.00		
Accident Insurance	5,000.00		
Water Taxes	1,000.00		
Office Expenses	11,000.00		
Freight Outward	10,000.00		
Stable Expense (mine)	7,500.00		
General Expenses	18,000.00		
	$256,500.00		$256,500.00

The inventory of coal on hand ready for shipment was $16,500.00.

Write off 10% depreciation from Plant and Machinery Account.

(*a*) Prepare a Profit and Loss and Income Statement showing the unit cost and percentage figures you deem desirable.

(*b*) Also prepare a Balance Sheet.

2. Fill in the cost sheet shown on page 312, choosing your own figures, and prepare a chart showing the changes in the unit cost of production for the twelve months of the year.

3. Using problem two of Group Two, page 235, prepare a Profit and Loss and Income Statement similar to any one of those presented in Chapter XIII. Assume that the Kent Manufacturing Company manufactures a patented fountain pen which it sells at the uniform wholesale price of $1.00 each. The sales for the year amounted to 57,770 pens, and there were manufactured during the year 60,000 pens.

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CHAPTER XV

AUDITING

IN this final chapter, it is well to emphasize a point frequently made throughout the book; namely, that the present text is a serious effort to *introduce* the reader to the subject of accounting. It is not intended to sum up the entire field of knowledge embraced; it is rather meant to serve as a means of lifting the curtain so that the studious learner may advance to the difficulties and success which lie beyond. The present chapter is in full harmony with the scheme of the entire volume; hence, instead of being a treatise on auditing, it will be found—it is sincerely hoped—a suitable introduction.

When the bookkeeper goes over or "checks" his work preparatory to posting or to taking a Trial Balance, his task embraces the rudiments of auditing. For much of the auditor's work is a review of the bookkeeper's work. Wherein then lies the difference? The mission of this chapter is to clear up the question. It must satisfy the student to learn in a preliminary way that the difference is to be found in the respective points of view of the bookkeeper and the auditor, in the wider and more scientific experience of the latter, and in the methods and aims of both.

The Ordinary Audit.—The auditor is usually engaged to perform a specific task. The methods he employs depend, in a measure, on the nature of his task. We shall first discuss him as the auditor called in at the end of the year to prepare the Balance Sheet and the Profit and Loss Statement. Surely he would not attempt to employ as a basis for the two the Trial Balance, which it is customary for the bookkeeper to submit to him, without verification. To aid him in the verification, he requests a list of all books kept, together with all vouchers. The list of books enables him to trace typical transactions, such as purchases and sales, from the first to the final entry, and in this way he gains a working notion of the business. Another preliminary request is that all totals and balances in books of original and of final entry be inked in, so as to minimize the probability of changes during the course of the audit.

Three points are looked for by the auditor in his checking. They are:

1. Errors of principle.
2. Errors of omission.
3. Errors of fraud.

The author has arranged them in the order of their frequency judged solely by his own experience.

1. *Errors of Principle.*—These consist almost invariably of a failure to observe the distinction between capital and revenue, a subject to which attention was called in the second section of Chapter Two (page 21). For example, if ordinary repairs are charged to such an account as Real Estate or Building instead of to an Expense Account like Repairs, the cost of operations for the period will be too low and the value of the assets will be too high. On the other hand, if a new wing were to be added to the factory and charged to Repairs Account or the purchase of new machinery charged to such an account as Factory Supplies or Factory Expense, the cost of operations would appear above its true amount and the assets would be undervalued incorrectly. Such an undervaluation of assets

as was just pointed out is an example of so-called secret reserves, a subject of which the student will learn more in his later studies.

2. *Errors of Omission.*—These are of two kinds; failure to record a transaction in some book of original entry, and failure to post an entry.

The omission of an entry in a book of original entry is often very difficult to detect. Examples are failure to enter a sale, thereby failing to charge a customer, neglecting to record a cash sale, and others. Certain "internal checks" to prevent such errors will be referred to in the third division of this chapter.

Failure to post an entry is more easily disclosed. If the entry unposted is from any book other than the Journal, the difference between the totals of the columns of the Trial Balance will be indicative of the fault. This is also true of the Journal, if either a debit or a credit item was overlooked, but if both the debit and the credit for the same transaction were skipped,—a not unusual happening when the entry is the final one on the page,—the Trial Balance will be in equilibrium. Detailed checking from the books of original entry to the Ledger or from the Ledger Accounts back to the books of original entry will reveal the errors included in this section.

3. *Errors of Fraud.*—These are the most difficult to detect because the bookkeeper endeavors to cover up his tracks. We cannot attempt to cover the entire field in this section, so we shall have to content ourselves with a discussion of two typical examples. These are the retention of cash and the stealing of merchandise.

(*a*) *Cash:* The first step consists of having the Bank Pass Book balanced, and the balance thus found compared with the cash balance shown by the books. Usually there is a discrepancy due to outstanding checks, but the balances are easily reconciled. One illustration will suffice:

Reconciliation Account

July 1, 1913.	Our balance as per Cash Book			$3,450.00
	Bank's balance as per Pass Book		$3,610.00	
	Deduct outstanding checks:			
	No. 867	$85.00		
	No. 868	34.68		
	No. 871	40.32		
			160.00	
				$3,450.00

Assuming that the cash balance has been found correct, it is usual to ascertain whether or not money has been kept instead of having been regularly deposited. This is an important index to the absolute honesty of the cashier or custodian of cash, as many instances are known where such employees have gambled with the funds of the concern. Deposits should be compared with consecutive entries to see that no receipts have been omitted from deposits, and all such omissions should be carefully traced and explained away.

The third step consists of an attempt to ascertain whether or not all receipts have been entered. Various complications are involved, but we shall consider only the simplest case. Recalling that every transaction in Double Entry Bookkeeping necessitates that accounts be debited and credited for equal amounts, a good method of procedure is indicated. It is to check back the credits from the accounts in the Customers' Ledger.

Let us consider for a moment how the bookkeeper may attempt to conceal his defalcation. He fails to enter cash or a check received from a customer, and retains it. But he must credit the customer's account (and, consequently Accounts Receivable) or the theft is easily liable to detection. But if he credits such an account, he must debit another in order to maintain the equilibrium demanded by double entry books. To do so compels him to charge some

Nominal Account, one of which it has been said, "it won't squeal." Two common methods are employed to uncover such practices, but the process of checking back from the Personal Accounts is enough for the reader's present purposes. If the entry suggested has been made, checking will reveal the fact, for no Cash Book entry (or Journal entry for notes or returns) will be found to correspond to the fraudulent item.

But the checking of the Cash Book does not rest with the receipt side alone. The payments must be scrutinized also. It is customary to demand vouchers or receipts for all disbursements. Such vouchers consist of receipted invoices, ordinary receipts, canceled checks, etc. Some preventative of fraud discussed in this section will be suggested in the third division of this chapter.

(*b*) *Merchandise:* Thefts of merchandise are probably at least as common as those of money, though it should be understood clearly that most mercantile failures are not based on losses connected with dishonesty of this sort. Actual inventorying at frequent intervals and comparison with the balance of the Stores Record, such as described in the last chapter (page 308), prove a positive check. But, in the absence of such a system, the accountant employs a check which is often a reliable index. To illustrate, let us assume these facts:

(*i*) During the past three years there has been an average profit of 40% of "sales on turnover."

(*ii*) The inventory at the beginning of the year was $18,000.00.

(*iii*) Net purchases during the year amounted to $240,000.00.

(*iv*) Net sales for the year amounted to $310,000.00.

(*v*) The inventory found at the end of the year was $24,000.00.

The question for the auditor to decide is whether the amount of the inventory is *probably* correct or not. The decision is reached as follows:

Three hundred and ten thousand dollars divided by 140% equals \$221,428.00+. (Explanation: The "turnover" is the first cost of goods sold. It includes Freight Inward, but in this case we may assume none exists. If goods are sold at an increase of 40% on the turnover, then sales equal 140% of the former amount and hence the division.)

The division shows that the cost price of the sales or the turnover was, approximately, \$221,500.00. Employing this figure we obtain the following:

Value of goods on hand at beginning of year......	\$18,000.00
Net purchases during the year................	240,000.00
	\$258,000.00
Deduct cost price of sales....................	221,500.00
Value of inventory which should be on hand...	\$36,500.00

The discrepancy between the value thus found (\$36,500.00) and the inventory as reported (\$24,000.00), amounting to \$12,500.00, suggests that an "investigation" is in order.

Auditors apply the principle involved in the foregoing computation to check up the reports of goods destroyed by fire or stolen.

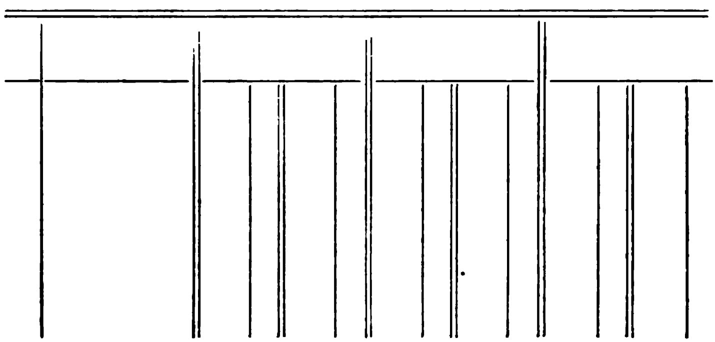
(*c*) *Miscellaneous Items:* Checking of purchases, notes receivable, notes payable, investments, etc., cannot be described here. The student will find these and kindred subjects discussed in books on auditing.

After completing the checking in detail the auditor submits his final report. This consists of a Balance Sheet and a Profit and Loss Statement, together with necessary comments. Sometimes, he adds suggestions tending to minimize fraud or increase efficiency, or both. We are now ready to consider the last two aspects of this chapter.

The Auditor's Report

I. The "Working Sheet":

The data from which the Statements are prepared is found on the so-called Working Sheet. It consists of paper ruled as follows, containing as many money columns as are desired:



The first step consists of copying the Trial Balance, for which purpose the first four spaces are employed. The pages of the Ledger are written in the narrow column, the titles of the accounts in the next, and the balances, debits, and credits separately, in the next two. Several additional sets of debit and credit columns are found to the right. These are variously employed; the author uses the second set for adjustments due to errors, the third for inventory and depreciation items, the fourth for losses and profits, and the fifth for Balance Sheet items.

The headings of these columns, in accordance with the scheme outlined, are shown on the following page.

A few illustrations should assist the pupil to understand this topic. Later on, we shall submit a simple audit involving the same subject in greater detail.

The Working Sheet

L. F.	Accounts	Trial Balance	Adjustments	Inventories and Depreciation	P. & L.	Balance Sheet

(*a*) *Adjustments:*

1. Assume that we found Buildings Account charged with an expenditure of $65.00 for repairing of the roof cornice, but decided that it should be charged to Repairs Account, instead. A Journal entry

Repairs	$65.00	
To Buildings		$65.00

is necessary. Instead of entering it as soon as it is discovered, the adjustment column alone is filled in, properly indexed, and the Journal entry made after the checking has been completed.

The adjustment consists of writing $65.00 in the debit column of Adjustments opposite to Repairs, and the same amount in the credit column opposite Buildings. Indexing consists of labeling these items, say with a small (*a*), and noting among the memoranda, for future error, the particulars of the error.

2. Let us assume, also, that the last Journal entry on a certain page was not posted. This entry was:

Notes Receivable Discounted	$500.00	
To Notes Receivable		$500.00

In the debit column opposite Notes Receivable Discounted $500.00 should be entered, and in the credit column opposite Notes Receivable the same amount; and both items should be properly indexed and explained in the memoranda sheets.

(*b*) *Inventories and Depreciations:*

1. Merchandise on hand should be charged to Merchandise Inventory Account and credited to the Purchases Account. This step is so easy that detailed illustrations are unnecessary. The items should be indexed, of course.

2. Depreciation on factory buildings should be charged to Manufacturing Account (usually) and credited to the

proper Depreciation Account. Indexing is necessary, as in other cases.

(*c*) *Profit and Loss:*

All balances,—showing a profit or a loss, adjustments, inventories and depreciation taken into consideration,—should be extended into the proper column. The difference between the totals of the columns represents the net profit or the net loss.

(*d*) *Balance Sheet:*

In a similar way all balances denoting assets and liabilities should be extended into their proper columns. The difference between the totals of the two columns constitutes the present worth or net capital. Readers may recognize in the Trial Balance and the last two sets of columns the old-time so-called Six Column Balance Sheet.

II. The Statements:

The auditor prepares from his Working Sheet the usual Balance Sheet and the Profit and Loss Statement. The Balance Sheet corresponds to the books after they have been closed, if the adjustments, inventories, and depreciations have been entered and posted.

III. The Report:

(*a*) The auditor's final report consists of the two Statements, together with "supporting schedules" such as for Accounts Receivable, Notes Receivable, etc. It also contains a certificate testifying to the correctness of the Statements. The forms of such certificates vary with the circumstances, but the most general and most unqualified one resembles the following:

> I hereby certify that I have examined the books of..............for the year ending.......... and that the above Balance Sheet and the accompanying Profit and Loss Statement are correct.
>
> (Signed) JOSEPH J. KLEIN,
>
> CERTIFIED PUBLIC ACCOUNTANT.

(*b*) As was stated before, it is usual for the auditor to point out means of preventing fraud and increasing efficiency. The suggestions under the first head are often referred to as "internal checks." We shall consider them at once:

1. If the books are not operated under a system of Controlling Accounts, it is customary to point out the efficacy of the latter, and to propose their installation.

2. It is often necessary to make recommendations regarding cash. If the cashier keeps the Ledgers, it is well to suggest that he be relieved of this work, though the suggestion requires tactful handling. Again, it is well that clerks engaged on individual Ledgers be shifted about, thus tending to disclose irregularities.

Another suggestion regarding cash concerns itself with the handling of petty cash. All moneys received, no matter how small in amount, should be deposited.

The usual method of handling petty cash consists of drawing an initial check for the use of the petty cash drawer, and of replenishing the supply whenever deemed necessary. As each check is drawn, the Petty Cash Account of the General Ledger is charged by an entry on the payment side of the Cash Book. At the same time an entry is made on the receipt side or in the receipt column of the Petty Cash Book. Once each month a Journal entry of the following form is made:

Wages	$———	
Postage	$———	
Freight	$———	
Expense	$———	
To Petty Cash		$———

The debit items are obtained from the totals of the distribution columns on the payment side of the Petty Cash Book, or, in the absence of such columns, by means of an analysis of the payments known as a "Recapitulation Statement." The monthly balance of Petty Cash Account is equal to the balance of the corresponding book, and this balance appears in the Trial Balance.

The method advocated by many accountants is known as the "Imprest" system. It may be described briefly, thus:

An initial check is drawn just as in the ordinary case, and the entry therefor is the same. The amount of this check is fixed at the sum which it is desired shall be the maximum amount in the cash drawer. When funds are low, a Statement is submitted by the custodian of petty cash showing how much was spent and the accounts chargeable therefor. A check is then drawn for the amount of this requisition, as a result of which the entry on the payment side of the Cash Book charges the various accounts shown on the "recapitulation." It is thus seen that the Petty Cash Account in the General Ledger is not affected by subsequent petty cash checks. The amount appearing in the Trial Balance is thereby fixed.

The advantage resulting from deposits of all cash receipts is obvious enough. But the same can scarcely be said of the Imprest system. Its most enthusiastic friends argue that the necessity of accounting for expenditures whenever asking for additional funds is a great preventative of peculation. Let this statement be contrasted with the one made regarding the procedure in the more common handling of petty cash, namely, that each month a similar Statement is necessary, and the student is then in as good a position as the author to pass judgment on the relative merits of the two systems.

3. It is also usual to recommend a Stores Record so as to control merchandise. The student should recall that in the second chapter on Cost Accounting this record was described and illustrated. If a physical count of individual

articles or varieties be made at frequent, but irregular, periods, and the amount thus found compared with the balance shown in the Record, it will prove a valuable check.

4. Recommendations regarding efficiency require greater experience and higher ability than are involved in the other three suggestions. Sometimes these suggestions assume the form of office reorganization, and often, again, the installation of a radically different accounting system. This subject also involves recommendations for increasing factory output, reduction of selling cost, expenses, etc., but here the training of an efficiency engineer must be added to the endowments of the accountant.

A Special Report.—We are about to illustrate the simplest kind of service that the auditor may be called upon to render. Let us assume that his opinion has been asked regarding the advisability of contributing $4,000.00 for a one-third interest in the manufacturing business of Howe & Rowe, who furnish him with the following data:

Balance Sheet of Howe & Rowe

DECEMBER 31, 1913

Plant and Machinery	$10 000.00	Loans	$5,000.00
Tools	3,400.00	Notes Payable	4,200.00
Goods in Process	1,300.00	Accounts Payable	3,250.00
Finished Goods	2,100.00	C. L. Howe, Prop	6,000.00
Raw Materials	600.00	F. Rowe, Prop	4,000.00
Notes Receivable	4,000.00		
Accounts Receivable	800.00		
Cash	250.00		
	$22,450.00		$22,450.00

Orders on hand	$4,000.00
Average net profits during last three years	2,000.00

Assume that Howe & Rowe were engaged in the manufacture of cigars, and that your client could not obtain any additional information, so that you had to base your judgment solely upon the above data, you might report as follows:

Report Relative to Acquiring a One-third Interest in the Firm of Howe & Rowe

In the absence of detailed Profit and Loss Statements and a thorough examination of the books, I advise against the acceptance of the proposal for the following reasons:

1. The condition of the business as shown by the Balance Sheet submitted to me is very unhealthy. This point is brought out clearly by a rearrangement as per Exhibit A, herewith, which shows that current assets of only $7,150.00 are available with which to meet current liabilities amounting to $12,450.00 (loans are assumed to be almost due).

2. The Balance Sheet shows no provision for depreciation of plant and machinery and tools. I cannot state from the data furnished me whether or not the amounts given represent original prices paid or whether they are the result of deductions caused by wear and tear, etc.

3. It is possible that notes receivable and accounts receivable represent perfectly good debts, but I cannot vouch for them without an opportunity to examine them.

4. Other questions, such as the correctness of the basis employed in the valuation of goods in process, raw materials, and finished goods, remain; also the question of the nature of the finished goods on hand, as to their marketability, remains to be answered.

It is *possible* that an examination of the books would lead to a different opinion, because they might show that the Balance Sheet has been drawn up over-conservatively, and that the business has been improving progressively since its beginning. But in the absence of such light, the best interests of my client demand that I report adversely.

Respectfully submitted,

(Signed) Joseph J. Klein,
CERTIFIED PUBLIC ACCOUNTANT.

EXHIBIT A

Balance Sheet of Howe & Rowe

DECEMBER 31, 1913

(Recast)

CURRENT ASSETS:			CURRENT LIABILITIES:		
Cash..........	$250.00		Loans.........	$5,000.00	
Accts. Receivable..........	800.00		Accts. Payable.	3,250.00	
Notes Receivable..........	4,000.00		Notes Payable.	4,200.00	$12,450.00
Finished Goods.	2,100.00	$7,150.00	CAPITAL:		
			C. L. Howe....	$6,000.00	
			F. Rowe.......	4,000.00	10,000.00
OTHER ASSETS:					
Plant and Machinery......	$10,000.00				
Tools..........	3,400.00				
Goods in Process	1,300.00				
Raw Materials..	600.00	15,300.00			
		$22,450.00			$22,450.00

A Simple Detailed Audit.—It is deemed well to present to the student, in brief outline because of the exigencies of space, the simpler steps in a "completed" audit. A completed audit is one in which the auditor is called upon to perform his functions at the end of a period after a Trial Balance has been taken. The completed audit is often compared to the "continuous" audit. The latter involves checking of the bookkeeper's work *during* the period under review, often as frequently as once a month, so that at the end of the year the final reports and Statements may be prepared without a preliminary audit.

Let us assume that we have been called upon to audit the books of a trading firm, organized as a partnership, which has just completed its first year of operations, and that our instructions were "to do all the work we consider necessary." We shall proceed to describe our operations, giving brief explanations of the reasons underlying the steps taken.

1. Ask for a copy of the partnership agreement.

This is called for so as to ascertain the relations between the partners, their rights and duties, and the nature and amount of the original investment. Limitations on their drawings for personal uses, salary allowances, interest on investments, and adjustments of net profit are also specifically sought. Brief abstracts are made in a so-called "audit note-book," which memorandum is kept for future reference.

2. Ask for a list of all books kept, together with the names of those in charge of the respective ones.

Such a list reveals what books are employed, the *possibility* of fraud in that related records are in charge of the same person, and avoids the possibility of missing some auxiliary book. In this case the following list was submitted:

Purchase Book	T. Jones, entry clerk
Sales Book	T. Jones, entry clerk
Cash Book	R. L. Browne, cashier
Check Book	R. L. Browne, cashier
Customers' Ledger	F. Season, bookkeeper
Creditors' Ledger	F. Season, bookkeeper
General Ledger	F. Season, bookkeeper
Pay Roll Book	F. Season, bookkeeper
Shipping (Receipt) Book	Bob McGovern, shipping clerk
Petty Cash Book	Miss Neal, Stenographer

3. Take the Bank Pass Book to the bank. If you are unknown there present a letter of introduction from the firm, and request that the book be balanced as quickly as possible, and that it and the vouchers be kept until you call for them.

By handling this matter as indicated, you assure yourself that the Pass Book has not been tampered with before presentation to you.

4. Call for the Trial Balance, order that all totals and balances be inked in, and take personal charge of all

records, including vouchers for cash payments, and receipts. etc., for cash receipts. Make sure that the records are safe from any possible interference.

The Trial Balance and the inking in of totals act as a check on the changing of Ledger Accounts, Cash Book totals, etc. Cases are known where, in a bank examination, collateral bonds of a high market value were substituted for those actually held by the bank which were worth much less. The statement regarding duplication is made because we know of an instance where the same receipt was used twice as a basis for checking two payments of equal amount.

5. The amount of cash in the petty cash drawer is counted and a note made of how much is found there. This amount is later compared with the balance which the Petty Cash Book shows should have been there at the time. Similarly, cash and checks in the general cash drawer are counted, and a record made thereof, to be used in reconciling the cash balance later.

6. We commence by checking the Cash Book. First we reconcile the Cash Book balance with that of the Check Book, and also with the bank's balance, unless the Pass Book has not yet been returned.

This reconciliation will serve to bring out any gross discrepancy, so that if any exists, the auditor may watch for it during the process of the checking.

(*a*) Checking the receipts of cash:

Very few concerns use counterfoil receipt books. The employment of these makes the checking of the cash receipts very easy. All that is necessary is a comparison between the entries in the Cash Book and the duplicate receipts or the stub of the receipts. In most cases the auditor must rely on two methods, namely, on tracing the deposits of cash as already indicated and the checking of postings from the Customers' and other Ledgers. And these two steps are the ones taken by us.

The system of check marks used will be found illustrated in (*b*) and (*c*) below.

(*b*) Checking the payments of cash:

For many payments, the canceled checks will be the only vouchers. Look particularly for the endorsement and make note of any checks which have passed through a number of hands before being deposited. There is more likelihood of fraud in connection with such checks than with those which bear only the endorsement of the payee and that of his bank. Compare canceled vouchers with invoices wherever possible. Compare pay roll checks with pay roll totals in Pay Roll Book. Use a distinct check mark in the latter book, because you have not yet audited it. The author suggests a downward tick (\ ) which may afterwards be converted to a regular check (√) when satisfied with the correctness of the record, by adding an up stroke (/).

Unusual disbursements such as for taxes, purchase of bonds, etc., should be vouched for by the production of the necessary papers. Some of the discounts allowed should be tested at random, though it is advisable to select the larger items for this purpose.

(*c*) Completion of the Cash Book:

The totals of each page should now be checked, careful attention being given to two points: the discount column total plus the net column total should be reconciled with the Accounts Receivable and Accounts Payable columns respectively, and the carrying forward of balances and of totals should be conscientiously scrutinized. The reconciliation referred to is not practical unless there is on each side of the Cash Book a fourth column for General Ledger items.

Posting should be carefully checked back from the Ledgers to the Cash Book. The items found correctly posted should be checked (√) in the various Ledger Accounts, and in the Cash Book. It is not necessary to "cross check" in the book of original entry,—the Cash Book in this case,—but if it is preferred to do so, then one of two devices may be employed. The original check is changed either to "√ " or to "√."

Errors as found, in posting or in the original entry, should be recorded in the adjustment column of the Working Sheet and an entry of the fact made in the Audit Note Book. The student should look for the Working Sheet record of two errors which we assume were discovered, namely, an entry on the credit side of the Cash Book.

July 6	R. Gray & Co.	Inv. 6/29 less 3%	4000 00	20 00	3980 00

and an entry under date of October 3, charging Office Furniture Account instead of Office Expense Account for varnishing, etc., $50.00.

The first item illustrates an error in the deduction of discount. The allowance should have been $120.00 (3% on $4,000.00), but only $20.00 was taken off. A claim should be addressed immediately to Robert Gray & Co., but the adjustment entry will be reserved till later. The second error is illustrative of the kind occurring most frequently, as was indicated elsewhere.

7. The General Ledger should now be completely checked. To do so, simply see to it that the inked in totals of the Purchase Book, of the Sales Book, and of the special columns of the Journal have been posted. Then check the posting of the General Ledger column of the Journal. Prove the correctness of the balances of the accounts in the General Ledger, and make sure that these balances have been correctly transferred to the Trial Balance.

After this has been done, the auditor releases the General Ledger, for the first part of the Working Sheet to which the Trial Balance has been transferred contains an abstract of the Ledger. He does not fear, then, that any changes will be made in this book.

8. The Purchase Book, the totals of which have already been carefully reviewed, is now checked in detail. Invoices are compared with individual entries, and evidence is sought of the actual receipt of the goods. Posting to the Creditors' Ledger is then checked.

In this case let us assume that a Stores Record was not kept (see list of books), and that invoices were not O.K.'d in such a way as to assure that they were correct as to quantity, quality, and price. We learn from Jones, the entry clerk, that he asked the receiving and shipping clerk, McGovern, about the receipt of the goods billed, and that, as soon as he ascertained that they had been so received, he proved the correctness of the extensions and additions, and entered the items. A criticism of this procedure will be found in the report.

9. The Sales Book next receives attention. It consists of a single entry for each day's sales; the total of the cash sales in the first column, and that of the sales on account in the second. At the end of each month the total of the second column is posted to the debit side of Accounts Receivable in the General Ledger and the total of both columns to the credit of Sales Account in the same Ledger. Invoices, consecutively numbered, are made upon a rotary duplicating device, so that the customer receives one with the goods and two are retained. One set is kept in numerical order, while the other is arranged alphabetically for easy reference in case of disputes. An adding machine is employed to obtain the totals for the Sales Book. The adding slip is used as a binder to retain each day's sales which are thus filed away. Posting to the Sales Ledger is made from the individual sales slips.

One of the steps frequently omitted is the detailed checking back of the sales slips. But as our clients wish that the audit be a thorough one, the work is performed. Three errors are found; in each case the wrong account has been charged for a sale which should have been entered on the debit side of another. The student is directed to note how these items are treated in the adjustments and in the report.

10. The Pay Roll Book was previously checked as to totals. It is decided not to attempt to prove this book, though it is often the chief source of fraud. Instead, the extensions of individual pay rolls are tested, and the book accepted as correct. See the recommendation regarding the pay roll in the report.

11. The Petty Cash Book is compared with the vouchers, which consisted, in the main, of slips for car fare, etc., and express receipts for expressage.

The Working Sheet.—The General Ledger Working Sheet, after the completion of the checking, is shown on the following page.

Comments on the Working Sheet (page 343):

(*a*) Note that, inasmuch as the books are in balance, the adjustments consist of equal debits and credits.

(*b*) The letters in italics will help to identify debits and credits, and will at the same time serve as an index to the corresponding items in the Audit Note Book.

(*c*) It is found that the Rent Account should be divided so as to separate office rent from selling or warehouse rent. The adjustment shown is the result.

(*d*) Nothing was said about examination of notes receivable and accounts receivable. The notes should be inspected especially to make sure that they are not overdue. As no contingent liability for unpaid discounted notes receivable exists, such an account is set up, as in-

Working Sheet of B. & D.

DECEMBER 31, 1912

L. F.	Accounts	Trial Balance Dr.		Trial Balance Cr.		Adjustments Dr.		Adjustments Cr.	
	A. B., Prop.			8,000	00				
	C. D., Prop.			7,000	00				
	Mdse. Inventory	2,200	00						
	Purchases	27,500	00						
	Returned Purchases			800	00				
	Rent	2,000	00					d 2,000	00
	Selling Expenses	3,800	00						
	Shipping Expenses	1,450	00						
	Selling Salaries	3,750	00						
	Selling Office	1,800	00						
	Sales			46,030	00				
	Sales Returns	3,000	00						
	Discount on Sales	900	00						
	Discount on Purchases			500	00			a 100	00
	Office Expense	1,100	00			b 50	00		
	Office Salaries	2,400	00						
	Discount on Notes	180	00						
	Accounts Receivable	9,300	00			c { 18 7 29	00 50 00	c { 18 7 29	00 50 00
	Cash	6,200	00						
	Petty Cash	50	00						
	Notes Receivable	3,500	00			e 2,000	00		
	Notes Payable			2,500	00				
	Accounts Payable			6,100	00	a 100	00		
	Office Furniture	800	00					b 50	00
	Show Room and Warehouse	1,000	00						
		70,930	00	70,930	00				
	Warehouse Rent					d 1,500	00		
	Office Rent					d 500	00		
	Notes Rec. Discounted							e 2,000	00
						4,204	50	4,204	50

dicated. A table should be constructed of the accounts receivable, so as to establish those due within thirty days, sixty days, ninety days, over ninety days. Here we find all accounts good, and all due within thirty days, so no tabulation is necessary.

(*e*) The memoranda in the Audit Note Book being merely rough notes, it is not deemed necessary to reproduce them.

(*f*) The following Journal entries must be made by the auditor to effect the indicated adjustments:

Notes Receivable	Accounts Payable	General	L.F.	December 31, 1912	L.F.	General	Accounts Receivable	Notes Payable
	100 00			Robert Gray & Co. To Discount on Purchases. P'd. Inv. of 6/29, on July 6, See C. B. 29, and deducted $20.00 instead of $120.00		100 00		
				31				
		50 00		Office Expense To Office Furniture Error in entry of Oct. 3, C. B. 41, $50.00 charged to O. E.		50 00		
				31				
		54 50		Accounts Receivable To Accounts Rec. $18.00 F. L. Long to T. Lane $18.00 $7.50 Jones & Co. to C. L. Jones 7.50 $29.00 R.M.Brown to M. Frank & Co. 29.00			54 50	

		To correct wrong charges in Customers' Ledger on Nov. 7, Nov. 21, and Dec. 9, respectively. In each case the credit a/c was charged instead of the corresponding debit.	
		31	
	1,500 00	Warehouse Rent	
	500 00	Office Rent	
		To Rent	2,000 00
		Latter account divided so as to show amount to be borne by each of the debit accounts.	
		31	
2,000 00		Notes Receivable	
		To Notes Receivable Discounted	2,000 00
		4 mos. Note of B. Brown Sons & Co., dated Nov. 6, our favor, discounted at Greene Natl. Bank, Nov. 16. This entry is made to show our contingent liability as endorsers.	

The completed Working Sheet is shown on the following page. The student should observe how the inventory and depreciation are entered, and how the items are extended into the last two sets of columns. Many auditors do not use the Balance Sheet columns.

Comments on the Working Sheet (page 347):

(*a*) The Journal entries previously shown are usually made after the Working Sheet has been completed, instead of at the point shown.

(*b*) The entries of the inventory and depreciations are next in order.

(*c*) Entries for the above, and for the closing of the books, will not be repeated. They are like those shown in Chapter IX, Section C, page 219.

(*d*) In case many inventory and depreciation items are used, especially where there are deferred assets and deferred liabilities, two columns are employed for inventories and two for depreciations. Ordinary Working Sheet paper contains more columns than shown.

(*e*) The extensions into the profit and loss column and into the Balance Sheet column are simply to test the correctness of the adjustment, etc. Note that the books will be in balance after closing, because the net profit added to the old capital (in the liability and capital column) balances the Balance Sheet items.

(*f*) After posting all the Journal entries, and closing the books, the Balance Sheet and the Profit and Loss and Income Statement are prepared, as also the full report. This work concludes the audit.

Working Sheet, B. & D. [illegible]

L. F.	Accounts	Final Balance Dr.	Final Balance Cr.	Adjustments Dr.	Adjustments Cr.	Inventories and Depreciations Dr.	Inventories and Depreciations Cr.	Profit and Loss: Losses and Costs	Profit and Loss: Profits and Proceeds	Balance Sheet: Assets	Balance Sheet: Liabilities and Capital
	A. B., Prop.		8,000 00								8,000 00
	C. D., Prop.		7,000 00								7,000 00
	Mdse. Inventory	2,200 00				4,650 00			2,450 00	4,650 00	
	Purchases	27,500 00						27,500 00			
	Returned Purchases		800 00						800 00		
	Rent	2,000 00			d ·2,000 00						
	Selling Expenses	3,800 00				75 00		3,725 00		75 00	
	Shipping Expenses	1,450 00						1,450 00			
	Selling Salaries	3,750 00						3,750 00			
	Selling Office	1,800 00						1,800 00			
	Sales		46,030 00						46,030 00		
	Sales Returns	3,000 00						3,000 00			
	Discount on Sales	900 00						900 00			
	Discount on Purchases		500 00		a 100 00				600 00		
	Office Expense	1,100 00		b 50 00		150 00		1,000 00		150 00	
	Office Salaries	2,400 00						2,400 00			
	Discount on Notes	180 00		c { 18 00	c { 18 00			180 00			
	Accounts Receivable	9,300 00		7 50	7 50		93 00	93 00		9,207 00	
	Cash	6,200 00		29 00	29 00					6,200 00	
	Petty Cash	50 00								50 00	
	Notes Receivable	3,500 00		e 2,000 00						5,500 00	
	Notes Payable		2,500 00								2,500 00
	Accounts Payable		6,100 00	a 100 00							6,000 00
	Office Furniture	800 00					160 00	160 00		640 00	
	Show Room and Warehouse	1,000 00			b 50 00		100 00	100 00		850 00	
		70,930 00	70,930 00			28,75 00	353 00				
	Warehouse Rent			d 1,500 00				1,500 00			
	Office Rent			d 500 00				500 00			
	Notes Receivable Discounted				e 2,000 00						2,000 00
				4,204 50	4,204 50						
						Net Profit		1,822 00			1,822 00
								49,880 00	49,880 00	27,322 00	27,322 00

The student's attention is now directed to the final report. Some believe that this constitutes the accountant's most important contribution. In it, as the reader will observe, he directs the client's attention to those features of the business, which deserve special comment.

The auditor must be very careful not to certify to any Balance Sheet or Profit and Loss and Income Statement which is not absolutely correct. The beginner cannot be too careful about observing this caution.

The following report is to be regarded as a type. Each particular one requires special treatment.

The Report

Tel. 2793 Greeley

JOSEPH J. KLEIN,
CERTIFIED PUBLIC ACCOUNTANT,
45 West 34th Street.

New York, Jan. 18, 1913.

Messrs. B. & D.,
—————— City.

Gentlemen:—

I herewith submit my report as a result of auditing your books for the year ending December 31, 1912,—the first year of your organization. This report consists of:

1. Exhibit A., the Balance Sheet.
2. Exhibit B., the Profit and Loss and Income Statement.
3. Exhibit A., Schedule 1, Accounts Receivable.
4. Exhibit A., Schedule 2, Notes Receivable.
5. Exhibit A., Schedule 3, Accounts Payable.
6. Exhibit A., Schedule 4, Notes Payable.
7. Exhibit A., Schedule 5, Inventory of Merchandise and Schedule of Office and Warehouse Furniture and Fixtures.

8. Recommendations for improving your system of accounting and office procedure.

I have verified all of the schedules except Exhibit A., Schedule 5, regarding which I certify to the extensions and additions only. I accept your certificate as to the correctness of the items and the prices.

The following errors were found and properly adjusted:

(*a*) Deduction of $20.00 instead of $120.00 from the invoice of Robert Gray & Co., dated June 29, 1912, and paid the following July 6th. We have caused a letter to be written to Messrs. Robert Gray & Co., and they have acknowledged the error. A check for $100.00 was mailed to you a few days ago.

(*b*) A charge of $50.00 to Office Furniture instead of to Office Expense.

(*c*) Three incorrect charges in the Customers' Ledger, as follows: On November 7th, T. Lane was charged instead of F. L. Long, $18.00; on November 21st, C. L. Jones was charged instead of Jones & Co.; on December 9th, M. Frank & Co. was charged instead of R. M. Brown.

Other adjustments which were made are referred to in the recommendations herewith, to which I direct your careful attention.

I certify to the correctness of the Balance Sheet and the Profit and Loss and Income Statement, herewith, as being in accordance with the books on December 31, 1912.

Respectfully,

(Signed) Joseph J. Klein,

CERTIFIED PUBLIC ACCOUNTANT.

EXHIBIT A

(This is omitted, as the student can prepare it for himself.)

EXHIBIT B

(This is omitted, for the reason given above.)

EXHIBIT A.—SCHEDULES 1-5

(These schedules are too simple to be shown. It is sufficient that the headings be shown, and that the student be cautioned to number the pages of the report consecutively.)

Recommendations:

1. It is suggested that two Rent Accounts be kept in the future, so as to show the rental paid in connection with selling distinct from the administration.

2. Notes receivable when discounted should be credited to Notes Receivable Discount Account instead of to Notes Receivable Account, so as to show your liability as endorsers until the notes have been paid. After they have been taken up, the contingent liability should be extinguished and the notes canceled. The proper method of doing so has been explained to your bookkeeper, who is perfectly capable of handling this work properly.

3. It is suggested that merchandise items be treated as follows:

(*a*) No goods to be ordered except on form of slip (sample left with you), copy to be retained in the office.

(*b*) Goods when received should be checked up, and O.K.'d on space provided. The following form of stamp, to be placed on all purchase invoices, is suggested:

Quantity.. (Received by)
Price O. K..................................
Extensions O. K................................
Entered..

(*c*) A Stores Record should be kept so as to provide perpetual inventories, keep stock on hand in proper quantity, and check quantities.

(*d*) It is suggested that employees call at the office for their pay, and that they receive their money from the cashier, who is the proper disbursing officer.[1]

(*e*) I believe it advisable to break up the General Expense Accounts, so as to show more clearly the constituent items involved, and I shall be pleased to discuss this matter with you personally.

(*f*) I strongly urge the desirability of arranging for a regular and continuous audit, so that the books may be examined once a month. The final report could then be had earlier, and the check would be a more desirable one.

Organization and Systematization.—The auditor's ability to organize the accounting system and office practice, so that it shall run smoothly and insure efficiency of results, brings into play a high degree of business imagination and requires wide experience and peculiar ability. We propose to conclude the present writing by briefly referring to the methods of organization and systematization, and also to indicate what steps are necessary in order to revise and improve an existing system.

[1] The student should note that the reason for this recommendation is that it is not wise for the person who figures out the payroll to have charge of paying out the money too, as is the case here.

The first step necessary in order to install an efficient system is to become familiar with the problem. The problem consists of two basic factors: (*a*) The nature of the business and its operations; (*b*) The intelligence, training, and ability of the staff of employees.

We shall illustrate the first factor by means of a partnership organization which is conducting a trading business. The principal transactions consist of purchasing in large quantities and disposing of the same in smaller lots. It is customary to receive and allow discounts for invoice anticipation. Sales are effected principally by salesmen who work on a commission basis. Other facts ascertained are: many notes are received from customers and they are retained until maturity; no notes are discounted, nor is a practice made of selling single name paper; city deliveries are made by two local express companies at rates fixed by contracts.

The facts ascertained suggest the bookkeeping system. A General Ledger and a Customers' and a Creditors' Ledger are necessary. Besides the ordinary accounts in the General Ledger, a Delivery Account should be set up. Its purpose is to record the cost of making deliveries, which information may later be used to decide the question of buying and maintaining a delivery system of their own. The fact that salesmen are paid commissions necessitates the creation of some device whereby the total sales may be found expeditiously. Any one of three methods may be adopted, depending on the number of salesmen employed as the principal factor. Special columns in the Sales Book could be used to keep separate the results of each agent's work. A segregation of the accounts in the Customers' Ledger or a marking of the accounts by a distinguishing symbol would give similar results. The columns previously shown (page 51) will be necessary in the Cash Book in order to handle the discounts. Otherwise the special column books usually employed could be profitably utilized.

A few suggestions will also be made regarding the office procedure. Arrange that no bills be paid until a form such as that shown in this chapter (page 351) shall have been properly filled in. There might be added a line, "Approved for payment ———." The item regarding payrolls, page 351, might be adopted in substance. A perpetual inventory book should be arranged, and some individuals should be designated as responsible for upkeep of stock and agreement of quantity on hand with book balances.

It is easier to install a system than to revise an existing one. This is so, not only because it is simpler to build than to rebuild, but also because opposition is frequently met when suggestions for changes are made. The first step is similar to the preliminary step of the audit,—learn just what the existing procedure is. A careful note should then be made of possibilities of leak, and of chances for delay, error, etc. The improvements should, wherever possible, include as much of the existing methods as can be used. But when necessary a complete reorganization is in order.

Enough has been stated to indicate the scope of the organizer's and systematizer's work. He also deals with the office correspondence, shipping facilities, factory organization, and all the other complex factors which are necessary to create and maintain maximum efficiency throughout the plant. It is manifestly impossible to do more than point out this problem, on which volumes could be written without exhausting the subject.

Summary

Auditing is essentially a review of the bookkeeper's work. Its aim is to detect fraud and discover errors. In order to do so the books are thoroughly checked. Besides checking, the auditor tests the correctness of such items as merchandise on hand, cash balance, values of assets as carried on the books, etc. His work is concluded by a report.

The report is governed by the task he is engaged to perform. If it is a special report, he is ruled absolutely by his instructions. But if it is a complete audit, he has a wide scope for the display of his faculties. He starts with the ordinary Balance Sheet and Profit and Loss Statement, supported by schedules, and concludes with recommendations. It is in this last division that he shows his superior worth, for his wide experience in many different lines enables him to exercise a judgment almost undreamed of by the bookkeeper. Though it is true that the bookkeeper may know more about his individual business than does the auditor, it must not be forgotten that it is the latter's wider vision and greater background that make his services so invaluable to the business community.

In concluding this chapter and the book let us reiterate once again that no attempt has been made to say the last word on the subjects treated; the guiding motive has been to assist the earnest student to lay a solid foundation for the study of accountancy, in the firm belief that with the foundation well laid the superstructure will take proper care of itself.

EXERCISES

Group One

1. State the object to be attained by an audit.
2. Why is an independent audit by a professional accountant desirable?
3. How can fraud in payment of wages be prevented?

4. Describe, in detail, how to audit the Cash Book.
5. What is a Working Sheet? How is it employed?
6. Can the auditor tell whether the inventory submitted to him is correct or not? How?
7. Mention some of the services the auditor may render the business community.
8. What is the difference between a special examination and a complete audit?
9. Mention the preliminary steps necessary to organize the accounting system of a manufacturer of hats.

Group Two

1. Prepare the exhibits and the schedules omitted in this chapter.
2. As the auditor for the National Burglary Association, report on the claim of a member for loss by theft of $8,000.00 worth of furs. You derive the following information from his books:

   (*a*) Average profit on first cost during past three years, 25%.

(*b*)	Inventory at beginning of year,	$18,500.00
(*c*)	Purchases during period	64,000.00
(*d*)	Sales during period	79,800.00
(*e*)	Present inventory	18,000.00

3. Prepare, from your own figures, a schedule of accounts receivable, dividing balances into those due within 30, 60, 90, and more days, respectively. Remember that some accounts may contain items falling into more than one class.
4. The student is strongly urged to audit a set of his own books or a friend's, and to prepare a complete report thereon.

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Greendlinger, L. *Accountancy Problems.* Pp. 216-228.
Montgomery, R. H. *A Practical Manual for Auditors.* By L. R. Dicksee. American edition. New York, 1909.
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Renn, George B. *Practical Auditing.* Chicago, 1907.

APPENDIX A

SUPPLEMENTARY EXERCISES

IN one point, at least, accounting has much in common with mathematics. One does not expect to become a mathematician by reading alone. Practice, and then more practice, is essential. The accountant, likewise, must solve problems in order to become an expert. The ordinary pupil will find sufficient material for practice appended to each chapter. The teacher seeking additional exercises for class use, as well as the ambitious student who is not content with "just enough," should find the supplementary problems collected in this appendix of service.

The problems have been arranged in logical order. This is so because they correspond to the arrangement of chapters throughout the book. Moreover, they constitute a pedagogical sequence, in that the problems within each group are offered in the order of difficulty. The sources of the various problems have been indicated, and where no reference appears the source is either unknown, or the problem is original.

EXERCISES FOR CHAPTER I

1. Describe various uses of the Journal. (C. P. A.)[1]

2. Describe fully *each* of the following accounts, showing what entries may be made on each side, and what disposition should be made of the balance: (*a*) Cash Account, (*b*) Interest Account, (*c*) Merchandise Account, (*d*) Real Estate Account. (C. P. A.)

3. Define *debit, credit, debtor, creditor.* State the general law growing out of the relationship of debtor and creditor that governs

[1] Set by the Board of Certified Public Accountant Examiners. States are not mentioned because similar problems and questions appear at various times in all states.

Double Entry bookkeeping. What is the result of a debit entry? Of a credit entry? (C. P. A.)

4. On what general principles is Double Entry bookkeeping based? State briefly a general formula for the correct recording of business transactions. (C. P. A.)

5. Two persons exchange with each other their respective notes for $1,000.00 each; what would presumably be the object of such exchange? What are the risk and the limit (in amount) of risk of each party to the transaction? How should such a transaction be recorded? (C. P. A.)

6. (*a*) Name three accounts which usually have debit balances.
(*b*) Name three accounts which usually have credit balances.
(*c*) Name two accounts which must have debit balances. Why?
(*d*) Name two accounts which must have credit balances. Why?

7. Define Trial Balance. Would you modify your answer if no Cash Account were in the Ledger? Explain fully.

8. If you accepted a position as bookkeeper, state what you would do on assuming charge. Give reasons for your acts. (C. P. A.)

9. Why should no erasures be made in books of original entry?

10. Argue for and against the acceptance of loose sales slips (carbon copies) as evidence in a court of law.

11. Employ, as books of original entry, a Journal and a Cash Book, and record the following transactions:

Jan. 2, 1913.—L. C. Brown began the provision business this day, investing cash $4,000.00; a stock of fixtures valued at $800.00; and horses and wagons, as per schedule, $1,250.00. On the same date, paid rent of store, $75.00; for printing and stationery, $27.00; deposit with Edison Light Co., $25.00.

Jan. 3.—Bot. of the S. & S. Co. mdse., as per invoice, on acct., $800.00.

Jan. 6.—Bot. of Swift & Co., on account, as per invoice, $750.00. Bot. of S. & S. Co., as per invoice, $1,000.00. Gave them my ten-day note for $1,200.00 on account. Paid salaries $35.00; bot. postage and stationery, $5.00.

Jan. 8.—Sold Roger Bros., on acct., merchandise as per invoice $350.00. Sold Long & Short mdse., as per invoice, on acct., $475.00. Sold sundry cash items, $120.00.

Jan. 9.—Sold Simple & Bright on their 15-day note, mdse. as per invoice, $900.00. Paid Swift & Co. cash on acct., $500.00. Bot. of Swift & Co., on acct., mdse., as per invoice,

$1,000.00. Bot. of New York Packing Co. on acct. mdse., as per invoice, $600.00.

Jan. 10.—Paid S. & S. Co. on account, cash, $200.00.

Jan. 13.—Paid salaries to date, $35.00.

Jan. 14.—Discounted my two-months' note, face $2,500.00, at the bank. Proceeds to my credit.

Jan. 16.—Paid note due to-day in cash.

Jan. 20.—Paid salaries to date, $35.00. Paid for shoeing horses, $3.50. Bot. a new set of harness for cash, $75.00.

Jan. 20.—Sold mdse. for cash; sundry items, $180.00.

Jan. 20.—Received cash from the following on account: Roger Bros., $100.00; Long & Short, $200.00.

Jan. 24.—Simple & Bright pay their note due to-day. Mr. Brown drew for private use, cash, $25.00. Sent home goods for his own use, $30.00.

Jan. 25.—Gave New York Packing Co. my ten-day note on acct., $500.00.

Jan. 27.—Paid salaries to date, $35.00.

Jan. 28.—Long & Short gave us their thirty-day note for $275.00, with interest at 6%, in full of account.

Jan. 31.—Paid salaries to date, $18.00. Paid stabling bill for the month, $45.00. Paid telephone bill, $7.50, and light bill, $13.00.

12. Post Exercise 11.

13. Take a Trial Balance from the Ledger resulting from Exercise 12.

14. Prepare a Statement of Assets and Liabilities and a Profit and Loss Statement, taking into consideration the following facts:

(*a*) The value of the unsold merchandise is $3,125.00.

(*b*) The fixtures are now worth $750.00.

(*c*) The horses and wagons are worth only $1,260.00.

15. Close the books.

16. Record Exercise 11, employing as books of original entry a Journal, Cash Book, Sales Book, and Purchase Book. Supply details for all sales and purchases.

17. Post Exercise 16.

18. Take a Trial Balance from the Ledger resulting from Exercise 17.

19. Prepare a Statement of Assets and Liabilities and a Profit and Loss Statement, taking into consideration the following facts:

(*a*) The value of the unsold merchandise is $3,125.00.

(*b*) The fixtures are now worth $750.00.

(c) The horses and wagons are worth only $1,260.00.

20. Close the books.

EXERCISES FOR CHAPTER II

1. Distinguish between the accountant and the bookkeeper, and between accounting and bookkeeping.

2. Into what classes are accounts divided? Define each class, and give several examples under each heading.

3. Describe the ordinary Merchandise Account and state its purpose. Does it fully accomplish the purpose desired? Give reasons for your answer. (C. P. A.)

4. By analysis, the debit side of Merchandise Account shows purchases, $60,000.00, returns to us, $4,000.00, entries offsetting errors in sales extensions, $2,000.00, trade discounts to customers, $13,500.00, balance profit, $27,000.00; the credit side shows sales $90,000.00, returns by us, $5,000.00, allowance to us, $1,500.00, inventory at close of year, $10,000.00. Suggest such change in the method of recording the foregoing statement as would readily show (a) net amount of purchases, (b) net amount of sales, (c) percentage of profit. (C. P. A.)

5. Describe several economies in accounting made possible by the introduction of special columns in books of original entry. (C. P. A.)

6. Discuss contingent liabilities. How should such liabilities be shown?

7. Classify the following accounts as personal, real or nominal:

(a) Salary

(b) Notes Payable

(c) Fixtures

(d) Rent

(e) Interest Earned

(f) Discount On Sales

Give reason in each case.

8. Fill in the last line, and prepare a chart or graph to represent the facts shown by the following table:

	1904	1905	1906	1907	1908	1909	1910	1911	1912
Net Purchases	[1] $426.00	429.00	502.00	514.00	500.00	506.00	535.00	612.00	630.00
Net Sales	$530.00	540.00	608.00	632.00	585.00	600.00	710.00	835.00	880.00
Percentage of Profit									

[1] Three ciphers omitted, i.e., really $426,000.00

9. Journalize the following for posting to a Double Entry Ledger:

Feb. 1, 1909.—Sold B. Henshaw merchandise, $6,000.00. He pays with a six months' note $5,000.00, dated Aug. 31, 1908, with interest at 5%, balance in cash.

Feb. 16.—Discounted the note at 6%.

Feb. 28.—The note being unpaid on presentation, we took up the same by paying it in cash and the protest fees of $2.00.

Mar. 3.—Received payment from Henshaw in full for the note. (Board of Examiners, Department of Education, New York City.)

EXERCISES FOR CHAPTER III

1. What are the functions of the Cash Book? Describe the peculiarities of one or more Cash Books with which you are familiar. (C. P. A.)

2. Answer all questions. Double Entry bookkeeping is implied. Ruled Journal or Ledger paper may be used, but the candidate will be held responsible for the ruling called for by the questions.

The books of account to be used in this paper are Journal, Sales Book, Invoice or Purchase Book, Sales Ledger, Purchase Ledger, Main Ledger and Cash Book.

On the left-hand page of Cash Book will be four money columns, with captions in the following order: Mdse. Dis. Dr., Accts. Rec. Cr., Mdse. Cr. (cash sales), and Cash Dr., which will include all cash actually received. On the opposite page will be four money columns: Mdse. Dis. Cr., Accts. Pay. Dr., Expense Dr. and Cash Cr., which will include all cash actually paid out. "Contra" discount columns are not used.

No Cash Account will be kept in the Ledger. All original entries must contain sufficient explanation to make the transactions perfectly clear.

James R. Sherman, a dealer in dry goods, has determined to increase his capital. He corresponds with Henry Clark, of Skaneateles, who will furnish $3,000.00 in cash, and his head salesman, William Johnson, telegraphs that he is prepared to invest $2,000.00 in the firm. Sherman invests $1,000.00 in cash and merchandise and furniture and fixtures, appraised respectively at $3,600.00 and $400.00. The new partners furnish in cash the sums promised by them. The partnership is unlimited as to time, and losses or gains are to be shared in proportion to capital. The new firm begins business May 1, 1908, under the firm name of Sherman & Co.

Make all necessary entries for the foregoing transactions and for those that follow:

May 1, 1908.—Buy by check, as furniture and fixtures, two roll-top desks @ \$50.00 each. Buy by check stationery and a set of books of account, \$50.00; charge Expense. Sell William Barber & Co., Binghamton, 200 yd. Am. black silk @ \$1.25. Terms, 2/5 n/60 (2% off if paid in 5 days, net 60 days).

May 2.—Sell Peters & Brock, Aurora, 100 yds. black crepon @ \$2.00. Terms, note at 10 days. Cash sales, \$28.50.

May 4.—Sell Coleman Bros., Skaneateles, 200 yd. barjeon cashmere @ \$1.12½. Terms, 2/10 n/60. Buy of Webster Bros., New York, 150 pc. Duchesse lace @ \$2.25; 200 yd. Am. black dress silk @ \$1.00. Terms, 3/5 n/30. Cash sales, \$45.25.

May 5.—Sell M. D. Mastin, Waterloo, 50 pc. Duchesse lace @ \$3.00. Terms, 2/10 n/60. Buy of Crosswell & Sons, New York, 50 pc. velvet ribbon @ \$2.12; 100 yd. black wool crepon @ \$1.50. Terms, 3/5 n/30. William Barber & Co. remit for bill of May 1.

May 6.—Sell George Lane & Co., Seneca Falls, 25 pc. fancy black ribbon @ \$3.00; 25 pc. grosgrain ribbon @ \$1.50; 10 doz. pc. linen torchon lace @ \$1.10 a doz. Terms, 2/5 n/30. Buy of Mynderse & Co., New York, 150 doz. ladies' cashmere hose @ \$2.75 a dozen; 100 doz. men's balbriggan half-hose @ \$5.50 a doz. Terms, 3/5 n/30. Cash sales, \$84.75.

May 7.—Sell William Barber & Co. 30 doz. ladies' kid gloves @ \$9.50 a doz.; 40 doz. men's kid gloves @ \$9.00 a doz.; 50 doz. ladies' cashmere hose @ \$3.50 a doz. Terms, 2/5 n/30. Cash sales, \$90.00.

May 8.—Cash sales, \$93.50.

May 9.—George Lane & Co. remit check for bill of May 6. You pay amount due on Webster Bros.' invoice of May 4. You pay amount due on Croswell & Sons' invoice of May 5.

May 11.—You pay amount due on Mynderse & Co.'s invoice of May 6. You sell Robert T. Smither, Geneva, 100 yd. Am. black silk @ \$1.25; 50 pc. fancy black ribbon @ \$3.50. Terms, 2/10 n/60. Buy of Webster Bros. 200 yd. fine English serge @ \$1.35. Terms, 3/5 n/30. Cash sales, \$86.25.

May 12.—William Barber & Co. remit for bill of May 7. Cash sales, \$78.00.

May 15.—M. D. Mastin remits for bill of May 5. Loan John Bell

$50.00. Pay protest fees and expenses on Peters & Brock's note of May 2, returned by bank, $2.06. Current expenses: printing circulars, etc., $48.00; horse feed, etc., $75.00; postage and telegrams, $22.00. Cash sales, $292.00.

After making all entries and postings show Trial Balance and losses or gains of partners.

Resource inventories: mdse., $3,200.00; expense, $50.00. Furniture and fixtures unchanged. (Regents of the University of the State of New York, Advanced Bookkeeping examination.)

3. A & Co. invoice goods, January 1, 1906, to B & Co. for $500.00, and send therewith a 3-months' bill, which B & Co. accept, and which A & Co. at once discount with their bankers. Two days before the bill matures B & Co. asked A & Co. to take $100.00 in cash and renew the bill for the balance for a further period of 2 months. The second bill is duly paid at maturity. Show these transactions in the ledgers of both A & Co. and B & Co. (Examination for Bookkeeper, New York State Civil Service Commission.)

EXERCISES FOR CHAPTER IV

1. Mention *two* essential points of difference between Single Entry and Double Entry bookkeeping. Mention a business in which (*a*) Single Entry would be advisable, (*b*) Double Entry would be advisable. What *two* advantages has the Double Entry method over the Single Entry method? (New York State Regents' Examination.)

2. Describe the process of changing Single Entry books to Double Entry. What additional accounts are required? Is it necessary to disturb any accounts already opened in the ledger, or to keep such accounts differently after the change? (C. P. A.)

3. Robinson & Co., wholesale dealers in notions, whose books have not been kept by Double Entry, wish to improve their system of bookkeeping. Write a brief report, advocating Double Entry, setting forth the superiority of that method generally, and showing by specific references to the mode of bookkeeping employed by them the advantages that will accrue from the change. (C. P. A.)

4. Your suggestions as to a change of method having been approved by Robinson & Co., you have been instructed to make the change at the close of the fiscal year; state in detail how you would proceed from start to point of proof. (C. P. A.)

5. The open accounts in the Single Entry Ledger of C. D. Howard show the following footings:

	Dr.	Cr.
C. D. Howard (proprietor)	$150.00	$5,784.50
John Smith	675.10	250.00
Richard Howland	500.00	750.00
Harry Marvin	125.70	......
Morton & Roberts	......	775.81

The Bill Book shows notes and acceptances due the business, $525.00, and notes and acceptances owed by the business, $697.50. Cash on hand, as shown by the Cash Book, is $2,876.40. Inventories show merchandise on hand worth $1,027.86, real estate worth $2,500.00, books and stationery, $86.50.

Prepare a Statement showing losses and gains, and open the new accounts necessary to carry on the books by Double Entry. (New York State Regents' Examination.)

6. Mention the methods of bookkeeping in general use. What books are ordinarily kept in each case? How is the profit or loss ascertained by the different systems? (C. P. A.—Answered in Greendlinger's Accountancy Problems, Vol. II, Page 205.)

7. Enter in a Journal and a Cash Book, both used as posting media for a Single Entry Ledger, the transactions shown in No. 11 of Exercises for Chapter I.

8. Post the foregoing.

9. Prepare a Proof of Posting.

10. Determine the condition and the progress of the business, employing for this purpose the data given in No. 14 of Exercises for Chapter I.

11. Assuming that the old books are to be continued, change them to Double Entry ones.

12. Make the change on the assumption that a new set of books is to be employed.

13. Now make the change, if the new set is to contain Controlling Accounts.

EXERCISES FOR CHAPTER V

1. What difference in books and accounts, if any, would exist between a sole proprietor and a partnership carrying on the same line of business?

2. J. B. Murray and J. E. Lehman become equal partners in a dry goods business, each with an investment of $4,000.00. One year later their liabilities exceed their resources by $2,165.00.

(*a*) What is the net insolvency of each?

(*b*) What is the total loss of the firm? (From Moore & Miner's Teacher's Manual.)

3. C. E. Frey enters into business January 1 with resources of $7,000.00 and liabilities of $3,000.00. Three years later he finds his resources are $3,000.00 and his liabilities $7,000.00.

(*a*) What has been his net loss?

(*b*) What is his net insolvency? (From Moore & Miner's Teacher's Manual.)

4. As the bookkeeper of a firm that had no articles of copartnership, what would be your duty on learning of the death of a partner? (C. P. A.)

5. Give a rule for adjusting partners' accounts (*a*) when the gains or losses are to be divided in proportion to each partner's investment and the time it remains in use; (*b*) when the proportion of gain or loss is fixed and interest is calculated on excess or deficit of capital. (C. P. A.)

6. What is meant by *good will?* What kind of property is good will? May the good will of a partnership be sold? (C. P. A.)

7. The books of original entry required for this paper are Journal, Sales Book, Invoice or Purchase Book and Cash Book. All original entries must be clearly explained. Three Ledgers are to be kept—Sales, Purchase and main Ledger. In rating papers the credits will be assigned as follows: Journal, 15; Sales Book, 10; Invoice Book, 8; Cash Book, 25; Sales Ledger, 7; Purchase Ledger, 5; main Ledger, 15; Trial Balance, 8; Closing, 7.

The Journal is to be provided with four money columns: Accts. Pay. Dr., General Dr., Accts. Rec. Cr., General Cr.

The special columns to be used in the Cash Book are as follows: on the debit page, *Mdse. Dis. Dr., Accts. Rec. Cr., Int. and Dis. Dr., Bills Rec. Cr.*, and *General;* on the credit page, *Mdse. Dis. Cr., Accts. Pay. Dr., Expense Dr.*, and *General.*

Make all necessary entries and postings for the following:

June 1, 1909.—A. L. & B. R. Anderson form a partnership to carry on a wholesale tea, coffee, and spice business in Buffalo, N. Y., under the firm name of Anderson Bros., each investing $6,000.00 in cash. They buy out the business and good will of J. H. McIntyre & Co., taking over the entire resources and liabilities, as given below, and giving in payment their note at six months for $7,000.00 and cash for the balance. *Resources:* merchandise, per inventory, $7,584.20; bills receivable, note of John Watson, at 30 days from May 7, $750.00; office furniture, per inventory, $1,140.00; insurance, unexpired premium, $150.00; good will, estimated value, $4,000.00; account of F. W. McGuire, Gowanda, N. Y., $945.69. *Liabilities:* bills payable, note at 60 days from April 15 in favor of Dean & Co., $1,500.00; an account with Morgan Bros., Chicago, Ill., $2,841.20.

June 2.—Bought for cash, books and stationery, $21.50. Sold Clinton Bros., Tonawanda, N. Y., 3 bags plain Rio coffee, 375 lb., @ 28c.; 4 mats fancy Java coffee, 300 lb., @ 30c.; 2 hf. chests choice Japan tea, 150 lb., @ 35c. Terms, 2/5 n/30 (2% off if paid in 5 days, net 30 days).

June 3.—Sold E. P. Randolph, East Aurora, N. Y., 5 hf. chests Young Hyson tea, 350 lb., @ 28c.; 2 hf. chests finest oolong tea, 120 lb., @ 51c. Terms, note at 10 days.

June 4.—Sold H. T. Rogers, Holland Patent, N. Y., 5 bags Rio coffee, 625 lb., @ 27c.; 5 hf. chests choice Japan tea, 375 lb., @ 33c. Terms, note at 30 days. Had Randolph's note, dated June 3, discounted at bank. Bought of Welch & Green, New York, 20 bales genuine Mocha coffee, 3,000 lb., @ 20c.; 10 mats fancy Java coffee, 750 lb., @ 23c. Terms, 3/10 n/30. Sold F. D. Sargent, City, 10 hf. chests finest oolong tea, 600 lb., @ 50c. Terms, 2/5 n/30.

June 5.—Received notice from bank that Watson's note (see June 1), sent to bank for collection June 3, has been paid and credited to your account. Bought new office safe for cash, $225.00. Bought of Henry Decker, City, 500 lb. clubhouse coffee @ 25c.; 5 lb. nutmegs @ 65c. Terms, 3/10 n/60.

June 7.—Bought of Waler & Walker, Boston, Mass., 100 lb. pepper @ 20c.; 25 lb. cinnamon @ 22c.; 50 lb. cloves @ 27c. Terms, 3/10 n/30. Clinton Bros. remit bill of June 2. Bought for cash, office supplies, $12.98.

June 8.—Paid cash for 2 tons of coal @ $6.50, for heating office.

June 9.—Welch & Green drew on us at 5 days sight for $200.00 in favor of L. E. Blackburn, of this city; draft accepted and applied on account of their bill of June 4. Received check from F. D. Sargent for bill of June 4.

June 11.—Sold W. D. Lightbody, North Tonawanda, N. Y., 3 hf. chests Japan tea, 225 lb., @ 37c.; 2 hf. chests gunpowder tea, 120 lb., @ 55c. Terms, 3/5 n/60.

June 14.—Paid draft accepted June 9, and sent Welch & Green N. Y. draft for balance due on bill of June 4. Had Roger's note of June 4 discounted at bank.

June 15.—Paid Henry Decker for bill of June 5. Cash sales of merchandise to date, $436.10. Paid salaries: bookkeeper, $40.00; clerk, $30.00; delivery man, $25.00; boy, $7.00; telegrams, etc., $1.04.

Prove the correctness of your work by making a Trial Balance, and close the books to show loss or gain and present worth of each partner. Mdse., per inventory, $7,335.90; furniture and fixtures, $1,365.00; insurance, unexpired premium, $137.50; expense, $125.00. (New York State Regents' Examination.)

8. A, B, and C agree to start in business with a capital of $400,000.00, of which A is to furnish $200,000.00, B, $100,000.00, and C, $100,000.00. A is to have one-half interest in the business, and B and C each one-quarter interest, and interest at the rate of 5 per cent. per annum is to be paid on excess capital, if any. A contributes $200,000.00, B, $90,000.00, and C, $80,000.00.

How would the Capital Accounts stand on the books after adjusting the Interest Account at the end of the year? (C. P. A.—Solved in Greendlinger's Accountancy Problems, Vol. I, Page 50.)

9. On April 30, 1911, St. John & Co. and Carpel Bros. enter into a joint venture agreement. They each contribute $4,000.00, with which they pay for goods that are shipped on May 1 to John Doe, of San Francisco. St. John & Co. advance $400.00 to defray freight and incidental expenses. John Doe, the consignee, is allowed 10% on the cost of the goods, and is to sell them at whatever price he can obtain for them.

On June 1, 1912, on the strength of a report sent by wire, Carpel Bros. draw at sight on John Doe for $4,000.00, to the order of Carl Peter, of New York. On July 1, 1912, St. John & Co. receive from the consignee a check for $11,200.00, all the goods being sold; on the same day St. John & Co. settle with Carpel Bros. Interest at 6% is allowed on all the transactions affecting the partners in the venture.

Prepare all the Ledger Accounts brought about by the above, on the books of St. John & Co., including a Joint Venture Account. (Construct your Ledger Accounts in such a manner that they will explain fully what took place, and make a cross reference possible.) (C. P. A.)

10. Adjust the net profit between John Doe and Richard Roe, page ——, if the copartnership agreement provided for the allowing of interest on investments and the charging of interest on withdrawals, at the rate of 5% per annum.

EXERCISES FOR CHAPTER VI

1. What is a corporation? Describe the necessary steps for the formation of a corporation, and show what is required as to (*a*) number of incorporators, (*b*) number of directors, (*c*) capital to be paid in, (*d*) par value of each share, (*e*) officers. (C. P. A.)

2. In the same line of business, what additional books and records, if any, are required by a corporation that are not used by a partnership?

3. Mention three books peculiar to corporations, and briefly describe each.

4. What is understood by the term *net profit?* State the final disposition of net profit in the books of a partnership; of a corporation. (C. P. A.)

5. Describe the following securities and show the essential features of each: (*a*) Mortgage bonds, (*b*) income bonds, (*c*) debenture bonds, (*d*) common stock, (*e*) preferred stock. (C. P. A.)

6. Describe the accounting steps involved in the declaration and payment of (*a*) cash dividend, (*b*) stock dividend. Who are entitled to participate therein? (C. P. A.)

7. In this question assume that the following books and rulings are to be used: Main Ledger; Customers' Ledger, Creditors' Ledger; Sales Book; Purchase Book; Journal with debit columns, *Accounts Payable* and *General*, and credit columns, *Accounts Receivable* and *General;* Cash Book, with columns on the debit side for *Discount on Sales, Customers,* and *General,* and columns on the credit side for *Discount on Purchases, Creditors, Expense* and *General.*

Record the following transactions in the books of original entry:

New York, April 1, 1911.—William Snow and John White determined upon a plan of combining their business interests. They formed a corporation, The Manhattan Furniture Co., with a capital stock of $80,000.00, consisting of 800 shares, par value of $100.00 each.

William Snow subscribed for 5 shares.

John White subscribed for 5 shares.

S. L. Mason subscribed for 50 shares.

John Foster subscribed for 25 shares.

Snow and White each paid cash for their subscriptions. Mason and Foster each pay for their subscriptions, one-half in cash, the balance in six months' notes.

The corporation, through its board of directors, bought William Snow's business, taking over the assets and assuming the liabilities, as shown in his balance of this date, giving in payment therefor 400 shares of stock.

Wm. Snow's Balance Sheet

April 1, 1911.

ASSETS		LIABILITIES	
Cash	$ 1,500.00	Notes Payable, as per Schedule 3	$ 9,000.00
Merchandise Inventory	32,000.00	Interest Accrued	249.00
Accounts Receivable, as per Schedule A	18,500.00	Surplus	6,000.00
Furniture and Fixtures	800.00	William Snow, Capital	37,551.00
	$52,800.00		$52,800.00

Schedule A, Accounts Receivable:—

	Invoice Dated	Terms	
E. D. Samuels	March 15	2/10, 1/30, N/90	$8,000.00
P. D. Mann	March 22	2/10, N/60	6,000.00
O. D. Boyce	March 23	2/10, N/60	4,500.00

Schedule B, Notes Payable:—

Six months' note in favor of St. Paul Furniture Co., dated Oct. 15, 1910, for $9,000.00, with interest at 6% per annum.

The corporation, through its board of directors, bought White's business, taking over the assets, except the cash, and assuming the liabilities, as shown in his balance sheet of this date, giving in payment therefor 250 shares of stock.

John White's Balance Sheet

April 1, 1911.

ASSETS		LIABILITIES	
Cash	$ 8,400.00	Accounts Payable, as per Schedule E	$ 7,400.00
Notes Receivable, as per Schedule C	2,600.00	John White, Capital	34,600.00
Accounts Receivable, as per Schedule D	5,000.00		
Merchandise Inventory	26,000.00		
	$42,000.00		$42,000.00

Schedule C, Notes Receivable:—

Four months' note, interest 6%, made by John Flynn, dated Feb. 16, 1911, $2,600.00.

Schedule D, Accounts Receivable:—

Metropolitan Hotel Co., invoice dated March 25. Terms, 3/10, N/60. $5,000.00.

Schedule E, Accounts Payable:—

Grand Furniture Co., invoice dated March 22. Terms, 5/10, 2/30, N/4 mos.; $7,400.00.

April 2.—Received of John Flynn his check for $1,200.00, as partial payment on his four months' note. (See Schedule C.)

April 4.—Received of P. D. Mann his check for $4,000.00, to apply on invoice of March 22. We allowed him the benefit of discount on this payment. (See Schedule A.)

April 5.—Sold the New York Hotel Co., terms 2/10, N/60, 10 mahogany chamber sets, at $120.00.

April 6.—Received of E. D. Samuels check for invoice of March 15. (See Schedule A.)

April 8.—Received of the Michigan Furniture Co., Grand Rapids, Mich., terms 5/10, N/90, invoice of furniture dated April 1, $1,500.00.

April 9.—Remitted the Michigan Furniture Co. exchange on Chicago in payment of invoice received April 8. We bought the exchange by check at our bank, the New York National, at 1/8% premium.

April 9.—Received of the New York Hotel Co. check for invoice of April 5.

April 10.—Sold John Wilson, Philadelphia, trade discount 5% terms, B/L attached to sight draft, 20 dining-room sets, at $70.

April 12.—Received of the Metropolitan Hotel Co. check for invoice of March 25. (See Schedule D.)

April 15.—Received of Grand Furniture Co., Chicago, terms, 5/10, 2/30, N/4 mos., invoice of furniture dated April 10, $5,000.00.

April 16.—Remitted Grand Furniture Co. exchange on the First National Bank of Chicago, in payment for invoice of March 22. (See Schedule E.) Bought the exchange by check at ¼% premium.

April 17.—Discounted our 90-day note of this date, $6,000.00, at our bank, receiving credit for proceeds. (Rate of interest, 6%.)

April 18.—Received advice from our bank that the sight draft against invoice of April 10, sold John Wilson, has been collected and credited. Collection charges, 1/10%.

April 18.—Our six months' note, due April 15 (see Schedule B), was protested for non-payment. Protest fee, $2.50. We arranged to take up the old note, giving our check for $5,000.00 and a new note of this date, to cover protest fee, interest, and balance of the old note. (Rate of interest, 6%.)

April 23.—Remitted to the Grand Furniture Co., Chicago, in payment for invoice, April 15, our sight draft on O. D. Boyce (see Schedule A), $4,500.00, and our check for the balance.

April 24.—Sold Amos Moore, trade discount 10%, terms, 2/10, N/30, 20 library tables, at $20.00, 10 dining tables, at $30.00.

April 25.—Paid cash for office expenses, $25.00.

April 26.—Our store was robbed of $50.00 cash and $100.00 worth of goods.

April 30.—Paid salaries in cash, $125.00.

April 30.—Paid office expense in cash, $10.00. (From Teachers' Examination, set by the Board of Examiners, Department of Education, City of New York.)

8. Post and close the books of original entry.

9. Prepare the usual statements. Take into consideration the following facts:

Merchandise Inventory	$28,000.00
Fixtures	700.00
Unconsumed Expense	35.00

(Exercises Nos. 8 and 9 are original.)

10. (*a*) What is cumulative preferred stock? Wherein does it differ from non-cumulative stock?

(*b*) What are a stockholder's rights with respect to the books of a corporation?

(*c*) Under what theory is a corporation stockholder liable to creditors for unpaid subscriptions to corporation stock?

(*d*) Out of what funds may dividends be paid?

(*e*) If dividends are not paid in accordance with your answer to the preceding question, have the creditors of the corporation any action against the company or its stockholders? (From Greendlinger's Accountancy Problems, Vol. II, Page 260.)

EXERCISES FOR CHAPTER VII

See Exercises for Chapter IX.

EXERCISES FOR CHAPTER VIII

1. Define and differentiate *reserve fund, sinking fund, depreciation, surplus.* Classify the foregoing as assets or liabilities, and give reasons in each case. (C. P. A.)

2. A corporation makes a practice of charging to expense and carrying to Depreciation Reserve Account every half year a certain percentage of the book value of its plant and machinery. What, in your opinion, is the correct method of dealing in this case with repairs and renewals: i. e., should the latter be charged to Profit and Loss, or can they properly be charged to Depreciation Reserve Account? Give reasons for your answer. (C. P. A.)

3. What reason can you give for the creation of a reserve for a sinking fund, when the reserve is not to be funded? Explain fully. (C. P. A.)

4. Describe a sinking fund. How should the account of such a fund be conducted in the case of a manufacturing corporation that bonds its works for $100,000.00, payable in twenty years, and wishes to accumulate during that period the sum necessary to retire the bonds at maturity? (C. P. A.)

5. Show the entry when interest is paid on the mortgage.

6. Show the entry when an installment is set aside.

7. Show an entry when investments which have been bought are sold again.

8. Show the entries when the mortgage is cancelled.

9. To which account should the interest on the mortgage be charged? Why?

10. Should Manufacturing Account or Profit and Loss Account be charged for machinery depreciation? Discuss fully.

11. Is depreciation of plant a legitimate element of the cost of goods produced? Explain the method employed to keep plant in efficient condition out of earnings. (C. P. A.)

EXERCISES FOR CHAPTER IX

1. Show what is meant by the following terms: Closing the books, balancing the books, making out a Statement, preparing a Balance Sheet, taking off a Trial Balance. (C. P. A.)

2. What are the main features of difference between a Trial Balance, taken out at the end of a fiscal year before the books of a business are closed, and one taken out immediately after the books are closed? (C. P. A.)

3. Define and differentiate the following kinds of Statements: (*a*) Trial Balance, (*b*) Balance Sheet, (*c*) Statement of Assets and Liabilities, (*d*) Statement of Affairs. (C. P. A.)

4. Define *assets, liabilities.* What are *fixed assets, quick assets?* In making up a general Statement of Assets and Liabilities, what groups of accounts constitute assets, and what constitute liabilities? State how to treat, on closing the books, assets and liabilities accrued but not actually due (such as interest receivable and payable, taxes, insurance, commissions, salaries, rents). (C. P. A.)

5. State the different steps in the process of closing the Ledger at the end of a fiscal period, and give the reason for each step. (C. P. A.)

6. The following accounts are found in the books of a corporation; state which of them would enter into the Profit and Loss Account and Balance Sheet, and which would show debit and credit balances: Reserve Fund, Depreciation on Furniture, Bad Debt Reserve, Bond Redemption Account, Bills Receivable, Rents of Properties Owned, Dividend on Preferred Stock. (C. P. A.)

7. A mining corporation has assets comprising, among others, leases, good will, rent with royalties paid in advance, and patents. How would you deal with them in the Balance Sheet and Profit and Loss Account? (C. P. A.)

8. The following is a Trial Balance of the Bedford Shoe Co., Dec. 31, 1911.

Trial Balance

BEDFORD SHOE CO.		DECEMBER 31, 1911.
Capital stock		$250,000.00
Surplus, Jan. 1, 1911.....................		42,000.00
Reserve for plant and machinery, Jan. 1, 1911		20,000.00
Reserve for bad debts and notes, Jan. 1, 1911		9,600.00
Inventory, finished goods, Jan. 1, 1911....	$ 32,000.00	
Inventory, raw material, Jan. 1, 1911......	45,000.00	
Purchases, raw material..................	135,000.00	
Sales, finished goods.....................		379,680.00
Discount on sales........................	2,500.00	
Discount on purchases....................		1,730.00

Goods returned to us	3,650.00	
Wages	127,000.00	
Power, heat and light	17,000.00	
Repairs to machinery	2,800.00	
Factory expense and salaries	9,500.00	
General expense	8,500.00	
Factory insurance	1,600.00	
General insurance	600.00	
Plant and machinery	25,000.00	
Office salaries	15,000.00	
Salesmen's salaries	22,000.00	
Notes and accounts receivable	200,000.00	
Notes and accounts payable		30,000.00
Furniture and fixtures	4,000.00	
Cash	75,500.00	
Taxes	960.00	
Advertising	5,400.00	

Inventories on Dec. 31, 1911:

Raw material	$10,700.00
Finished goods	16,000.00
Furniture and fixtures	3,580.00

Prepare a Trading and a Profit and Loss Account and a Balance Sheet. Allow 5% depreciation on plant and machinery for the year. Allow 2% for reserve for bad debts and notes for the year.

Make the Journal entries necessary to close the books of the aforesaid corporation.

A dividend of 6% has been declared on the stock of the aforesaid corporation. Journalize. (Teachers' Examination, Board of Examiners, Department of Education, New York City.)

EXERCISES FOR CHAPTER X

1. State how the books of a wholesale tobacco dealer would differ from those of an orphan asylum.

2. What are the essential differences between a Trading and Profit and Loss Statement and a Statement of Income and Expenses?

3. When, if ever, does a Statement of Receipts and Disbursements contain the same information as the Statement of Income and Expenditures? Discuss fully.

4. State the theory and the practical uses of a Realization and

Liquidation Account, showing at least two instances in which it may be used with advantage. (C. P. A.)

5. Show the entries necessary to record the following transactions of a society:

(*a*) Dues levied;
(*b*) Water taxes paid;
(*c*) Building renovated;
(*d*) Additional story built;
(*e*) Dues received;
(*f*) Salary of secretary paid.

6. Assume that you have been called upon to close the books of the ———— Society, Exercise 1, Group Two, Page ——. Make the necessary Journal entries.

7. The New Eron Club keeps its books by double entry. On December 31, 1912, the following Trial Balance was shown you:

Trial Balance

NEW ERON CLUB. DECEMBER 31, 1912.

Dues Receivable	$ 27,500.00	
Dues		$18,000.00
Real Estate	80,000.00	
Mortgage Payable		50,000.00
Interest on Mortgage	2,000.00	
Fixtures	5,200.00	
Postage	450.00	
Salary	3,100.00	
General Expenses	3,350.00	
Taxes	1,000.00	
Investments	10,000.00	
Interest on Investments		86.00
Accounts Payable		800.00
Special Cash Fund	5,000.00	
Cash	4,200.00	
Petty Cash	18.00	
Capital Surplus		72,932.00
	$141,818.00	$141,818.00

As all repairs and additions during the year had been charged to General Expenses, it was decided not to write off any depreciation. No deferred items exist. Prepare·

(*a*) Statement of Receipts and Disbursements;
(*b*) Statement of Income and Expenses;
(*c*) Balance Sheet;
(*d*) Close the books.

8. During 1913, the following transactions occurred, and they were properly recorded:

Dues levied, $15,000.00; dues collected, $20,000.00; mortgage reduced to $40,000.00; interest paid, $1,800.00; fixtures purchased, $1,000.00; postage, $510.00; salary, $3,300.00; general expenses, $5,100.00; taxes, $1,000.00; interest on investments received, $91.00; accounts payable reduced to $160.00.

(*a*) Prepare a Trial Balance, as of December 31, 1913;
(*b*) Prepare a Statement of Receipts and Disbursements;
(*c*) Prepare a Statement of Income and Expenses;
(*d*) Prepare a Balance Sheet;
(*e*) Close the books.

EXERCISES FOR CHAPTER XI

1. When and why is a Statement of Affairs required?

2. What is the function of the Deficiency Account? Is it an account or a Statement? Why?

3. Define and differentiate the following kinds of Statements: (*a*) Trial Balance, (*b*) Balance Sheet, (*c*) Statement of Assets and Liabilities, (*d*) Statement of Affairs. (C. P. A.)

4. Should contingent liabilities be shown in the Statement of Affairs? Give reasons for your answer.

5. Arrange the following items, appearing in the books and records of a New York City concern, in the order of priority with respect to payments:

(*a*) Water taxes; (*b*) U. S. corporation tax; (*c*) wages; (*d*) directors' fees; (*e*) New York state tax; (*f*) interest on mortgage; (*g*) balance due bank after selling securities pledged; (*h*) notes payable; (*i*) accounts payable.

6. You are asked to prepare accounts and to examine into the affairs of a bankrupt, and you find that the books have been kept by Single Entry. How would you proceed? (C. P. A.)

7. The Parker Construction Company is unable to meet its obligations and is forced into liquidation. At the time the receiver takes charge of its affairs the following Trial Balance is prepared from the company's books:

Trial Balance

Cash	$ 500.00	
Land and Buildings......................	10,000.00	
Mortgage on Land and Buildings..........		$ 8,000.00
Plant and Equipment.....................	20,000.00	
Creditors		59,400.00
Completed Contract Accounts (Losses).....	18,000.00	
Capital		50,000.00
Uncompleted Contract Accounts (Outlay)..	30,000.00	
Securities Acquired in Settlements.........	15,000.00	
Debtors' Accounts for Completed Contracts	6,000.00	
Expenses	6,500.00	
Inventory of Materials....................	2,000.00	
Profit and Loss (Deficiency)..............	9,400.00	
	$117,400.00	$117,400.00

The sureties on the unfinished contracts estimate that a further outlay of $20,000.00 will be required to complete the work and realize the contract price of $40,000.00, and their offer to take over the materials on hand for $1,500.00, as part of said cost, is accepted by the receiver. Of the securities acquired, $5,000.00 is pledged to secure $11,000.00 due creditors, and $10,000.00 is pledged to secure $9,000.00 due creditors. The company owes for taxes on real estate $100.00, and for salaries and wages of employees $1,200.00, which sums do not appear on the books. The company has discounted customers' notes for $3,000.00, of which subsequent advices indicate that $1,000.00 will be dishonored, and a debtor owing $1,500.00 on unsecured account has failed and disappeared. It is estimated that the amount realized on land and buildings will be sufficient to satisfy the mortgage only, and that plant and equipment will realize only 6% of the book value.

Prepare a Statement of Affairs and Deficiency Account.

(C. P. A.—Solved in Greendlinger's Accountancy Problems, Vol. I, page 137.)

EXERCISES FOR CHAPTER XII

1. Devise a system of accounts for a receiver or trustee. What accounts must he necessarily keep?

2. If four trustees wind up an estate, discuss the amount of fees to which they are entitled.

3. Five trustees wind up an estate amounting to $108,500.00.

Assuming that each of them is entitled to the same fee, how much does each receive?

4. Differentiate between a Statement of Affairs and a Realization and Liquidation Account. What, if anything, have they in common?

5. When preparing a Statement of Realization and Liquidation in the case of a company dissolving itself, how would you treat reserves for depreciation? State *three* methods of treating the matter and give reason for your preference. (C. P. A.)

6. The Richardson Engraving & Printing Company, a corporation having an authorized capital stock of $50,000.00, is owned by William Richardson, $10,000.00; Silas Johnson, $15,000.00, and Thomas Acton, $25,000.00.

The plant was destroyed by fire, September 23, 1908. All the books and records were saved, except the sales records, which were not written up for September. The insurance companies paid $28,000.00 on the plant, and $7,000.00 on the stock, which was distributed to the stockholders as received, in proportion to their holdings. Cash was received from September sales amounting to $13,500.00. On September 30, the Trial Balance disclosed the following condition:

Capital Stock		$50,000.00
Plant	$ 30,000.00	
Stock on Hand, June 1, 1908	8,750.00	
Accounts Receivable	19,640.00	
Accounts Payable		12,590.00
Reserve for Bad Debts		1,250.00
Insurance Adjustment		28,000.00
Cash	3,900.00	
Engraving		77,600.00
Printing		99,350.00
September Sales, Not Allocated		24,175.00
Merchandise Purchases	58,800.00	
Wages	130,180.00	
Rent	1,800.00	
Salaries	5,750.00	
Profit and Loss Surplus		855.00
William Richardson	7,000.00	
Silas Johnson	10,500.00	
Thomas Acton	17,500.00	
	$293,820.00	$293,820.00

The Accounts Receivable realized $18,320.00, and the liquidation expenses were $1,850.00. The stockholders turned in their stock for cancellation, and received their proportionate amount of cash. Prepare Journal entries, closing the books of the corporation, and a Profit and Loss Account. (C. P. A.—Solved in Greendlinger's Accountancy Problems, Vol. II, Page 108.)

EXERCISES FOR CHAPTER XIII

See Exercises for Chapter XIV.

EXERCISES FOR CHAPTER XIV

1. What is understood by cost or factory bookkeeping? What is shown by the cost books? What are the principal items entering into the cost of manufactured products? (C. P. A.)

2. State what is meant by a *cost sheet*, showing its advantages and how it is made up. Give a form of cost sheet for some manufacturing business with which you are familiar. (C. P. A.)

3. The East & West Railroad Co. hauled many tons of coal during the year to the various distributing points along its line, for the use of the locomotives, and upon this company coal $70,000.00 freight was charged, such charge being made against the cost of fuel for locomotives and credited to freight earnings. Was the above method of handling this freight item correct? In answering, state your reasons fully. (C. P. A.)

4. The Trial Balance of the Vincent Manufacturing Co., as of December 31, 1906, is given below. Inventory, December 31, 1906, $90,000.00.

Prepare a Statement of Profit and Loss and Income, showing (*a*) cost of manufacture, (*b*) cost of selling, (*c*) cost of administration, (*d*) net profit, (*e*) surplus.

Trial Balance

VINCENT MANUFACTURING CO. DECEMBER 31, 1906.

Discounts, Trade ....$	4,030.00
Entertainment of Customers............	2,000.00
Machinery Inventory, Dec. 31, 1906.....	40,000.00
Tools Inventory, Dec. 31, 1906.........	8,500.00
Patents Inventory, Dec. 31, 1906.......	21,000.00
Patterns Inventory, Dec. 31, 1906......	12,400.00
Merchandise Consumed	410,000.00

Bills Receivable	3,050.00	
Accounts Receivable	250,000.00	
Insurance—		
Machinery, Tools and Patterns	500.00	
Merchandise	650.00	
Employers' Liability Premiums	4,000.00	
Taxes, Personal Property	1,000.00	
Interest, General	4,470.00	
Cash	45,000.00	
Labor, Productive	300,000.00	
Labor, Unproductive	35,000.00	
Power	21,000.00	
Repairs, Machinery	1,310.00	
Factory Expenses	3,010.00	
Office Pay Roll	18,000.00	
Inventory, January 1, 1906	75,000.00	
Merchandise Sales	....	$1,048,500.00
Allowances	10,900.00	
Office Furniture and Fixtures	5,700.00	
Salaries, Officers	15,000.00	
Postage	2,000.00	
Telegrams and Telephones	1,800.00	
Collection and Exchange	700.00	
Stationery and Printing	3,050.00	
Freight in	23,000.00	
Freight out	10,000.00	
Cartage and Express in	3,750.00	
Bonding of Employees (Office)	250.00	
Travelling Expense (Salesmen)	17,500.00	
Salesmen's Commissions and Salaries	40,000.00	
Bills Payable	....	99,050.00
Accounts Payable	....	43,000.00
Surplus	....	43,250.00
Capital Stock	....	200,000.00
Directors' Fees	1,500.00	
Cartage out	4,300.00	
Discounts, Trade	....	6,300.00
Return Sales Account	41,000.00	
	$1,440,370.00	$1,440,370.00

(C. P. A.)

EXERCISES FOR CHAPTER XV

1. What is a voucher, and what is your understanding of its purpose? (C. P. A.)

2. How would you determine the profits for a given period from a set of books kept on the Single Entry system, the capital at the beginning of the period being known? (C. P. A.)

3. In drawing up a Balance Sheet, is it desirable to show the assets and liabilities by groups, and, if so, into what groups would you classify? Give reasons for your classification. (C. P. A.)

4. Devise a system of accounts for a building contractor who constructs for a fixed price and also for a fixed percentage added to cost.

5. How should an auditor commence a new audit of the books of a concern whose business is foreign to his experience, in order to gain familiarity with the work in hand in the shortest possible time? (C. P. A.)

6. Why should the auditor compare all payments with proper vouchers, show agreement between Cash Book balance and bank balance, and reconciliation of check book and bank pass book? (C. P. A.)

7. A person is interested in the profits of a corporation, but is not a shareholder therein. He objects to having the preliminary expenses enter into the Profit and Loss Account. Is his position tenable? Give reasons. (C. P. A.)

8. A concern owns a parcel of real estate, which cost it $500,000.00. There is a purchase money mortgage on it of $350,000.00. You are asked to enter the same in the balance sheet at $350,000.00 net. Would you comply with this request? Give reasons for your answer. (C. P. A.)

9. Three months after the close of a fiscal year you are requested to audit a set of books to the end of the fiscal year. How do you ascertain if the cash called for by the books was actually on hand and in bank? (C. P. A.)

10. What is the objection to loose leaf depositors' Ledgers? (C. P. A.)

11. Explain in what general way an auditor may arrive at a conclusion regarding the value of book debts and outstanding accounts. (C. P. A.)

12. In classifying the items of a Statement of Profit and Loss, under what caption should the following items appear, to be logically allocated: freight on sales, insurance, salaries of watchmen? Give reasons for your allocation. (C. P. A.)

13. If you were called upon to investigate the books and accounts of a manufacturing firm that contemplated selling its business to a corporation, and were required to report on the net profits during the preceding five years, what course would you pursue, and what would be the character of your report? (C. P. A.)

14. A cashier, who is also in charge of the Ledger Accounts, is suspected of irregularities. What procedure would you pursue with a view to disclosing his method of covering his shortage? (C. P. A.)

15. Write two forms of certificates, such as might be given to a client upon your completing an audit for the fiscal year of the company (C. P. A.)

APPENDIX B

REVIEW EXERCISES AND TESTS

We shall, in conclusion, submit a few examples of complete examination papers taken from various sources.

1. *University of the State of New York*

200th High School Examination

ELEMENTARY BOOKKEEPING

Write at the top of the first page of your answer paper (*a*) the name of the school where you have studied, (*b*) the number of weeks and recitations a week that you have had in bookkeeping.

Four recitations a week for a school year, in a recognized academic school, is the regular requirement, and any statement showing less or other than this should be accompanied by a satisfactory claim or explanation made by the candidate and certified by the principal; otherwise such paper will be returned.

Answer All Questions

1-2. Show the Loss and Gain account and the proprietors' accounts that would result from closing the books of Dean & Ford for the year ending Dec. 31, 1909.

The open accounts and their respective footings were as follows: W. E. Dean, proprietor, Dr. $700, Cr. $10,000; H. A. Ford, proprietor, Dr. $950, Cr. $10,000; Mdse. Dr. $29,105.45, Cr. $20,016.10; Furniture and Fixtures Dr. $785.30, Cr. $50; Bills Payable Dr. $7,789, Cr. $8,567.50; Bills Receivable Dr. $12,000, Cr. $11,200; Joseph Wilkins Dr. $590.20, Cr. $786.45; William Porter Dr. $659.80, Cr. $434.25; Expense Dr. $536.28; Insurance Dr. $125; Mdse. Discount Dr. $676.55, Cr. $1,321.05; Interest and Discount Dr. $701.40, Cr. $529.90. The cashbook footings were Dr. $25,441.20, Cr. $17,154.93. Inventories were mdse. $14,397.68, furniture and fixtures $718.10, expense $45.75.

3-5. Using double entry cashbook and journal, both as books of *original entry*, make entries of the following in proper form for posting to the double entry ledger (Enter cash items in cash book only):

Jan. 4, 1910.—William Jackson, Elmira, N. Y., begins a grain business with the following investment: cash, $2,500; mdse., $1,600; James White's 60-day note, without interest, dated Dec. 21, 1909, $500; real estate, $5,000; furniture and fixtures, $460; Charles R. Packard, Rochester, N. Y., owes him $1,240 on account. He owes L. O. Mason, on account, $1,600, and has an acceptance outstanding (draft drawn payable 60 days after date by John Brown in favor of Harrison Tyler, dated Dec. 29, 1909), $975.

Jan. 5.—Bought of Blake & Weston, Buffalo, N. Y., 1,000 bu. corn @ 39½c.; 1,200 bu. wheat @ 62c. Terms 3/10 n/30 (3% off if paid in 10 days, net 30 days).

Jan. 6.—Sold J. H. Clark on account 100 bu. corn @ 49c.; 500 bu. wheat @ 75c.

Jan. 7.—Sold Henry Johnson 250 bushels barley @ 50c.; 200 bu. oats @ 24c. Terms, 2/10 n/60.

Jan. 8.—Had White's note (see investment) discounted at bank at 6%.

Jan. 10.—Bought of Townsend & Co., Rochester, N. Y., on account 1,500 bu. wheat @ 63c.

Jan. 11.—Sold Porter Black for cash 100 bu. oats @ 25c.

Jan. 12.—Paid cash for new typewriter for office use, $100.

Jan. 13.—Sent Townsend & Co. draft at 10 days after date on Charles R. Packard (see investment) for amount of invoice of Jan. 10.

Jan. 15.—Sent Blake & Weston, N. Y., draft in payment of bill of Jan. 5, less discount.

Jan. 17.—Received check from Johnson for amount of his bill of Jan. 7, less discount.

Jan. 18.—Townsend & Co. return the draft on C. R. Packard sent them on Jan. 13, stating that Packard has refused to pay the draft.

6. Post from questions 3-5 items belonging in mdse. account only. Close mdse. account; inventory, $3,010.

7. Make in proper form under date of Jan. 17, an account sales of 20 tubs butter and 30 cases eggs received Jan. 5, 1910, by Philip Downer, commission merchant, Albany, N. Y., from James Bower-

man, Voorheesville, N. Y. Sales were made as follows: Jan. 9, 10 cases, 240 doz., eggs @ 30c.; 5 tubs, 300 lbs., butter @ 28c. Jan. 12, 10 tubs, 600 lbs., butter @ 29c. Jan. 14, 5 cases, 120 doz., eggs @ 31c.; 5 tubs, 300 lbs., butter @ 27c. Jan. 15, 15 cases, 360 doz., eggs @ 30c. Charges were freight, $10.75; cartage, $2.25; commission, 5%.

8. Write in proper form the invoice for goods received from Blake & Weston Jan. 5. Write also and indorse in such form as to serve as a voucher to Jackson the bank draft sent in payment Jan. 15 (supply all necessary data).

2. *Department of Education* *The City of New York*

PRELIMINARY EXAMINATION FOR GRADUATION

FROM THE HIGH SCHOOL OF COMMERCE

ELEMENTARY BOOKKEEPING

Time—1 P. M. Candidate's No........

Do not allow days of grace. Be careful to do all work on the page indicated. Papers deficient in neatness and penmanship will be graded below 60%. Answer questions in order. Page your double sheets 1 to 8 and your single sheet 9 to 10.

---

(1) On page 1 write journal entries for these transactions, omitting day book records:

July 1, 1910.—Drew a sight draft on A. Adams, and remitted same to B. Brown on account, $1,000.

July 6.—Accepted, payable at First National Bank, C. Carson's draft, dated July 3, at 30 days' sight, favor D. Dawson, $350.

July 9.—Received of E. Elliott & Co. to apply on account, their draft for $500, dated July 7, at 60 days from date, on F. Franklin & Bro. our favor, which the drawees have this day accepted, payable at Second National Bank.

July 10.—Drew a draft at 45 days from date on G. Grover & Sons, favor of Hamilton & Inslee, for $700, and remitted same to them to apply on account, less discount at 6%.

July 16.—Drew a draft at 60 days from date on J. Jamison, our favor, for amount of invoice sold him on July 10, $1,200; discounted draft at the Colonial Bank, for credit, less discount at 4%.

July 17.—Prepaid Karl King & Co.'s draft, $650, dated July 14, at 20 days' sight, favor Levestein & Malarky, less discount, by check on Colonial Bank. (15)

(2) On lower half of page 1 write a journal entry to convert books, formerly kept by single entry, to double entry, from the following facts: Cash in bank, $4,000; in safe, $350; Merchandise on hand at cost, $5,000; Fixtures, estimated value, $250; due you on notes your favor, $1,500; due you on account, William Jones, $200; Paul Prescott & Son, $300; O. Opdycke, $700. You owe on account: R. Rainsford, $1,000; S. Stephens & Bro., $300; you owe on notes outstanding, $2,000. A. Armstrong's investment was $6,000 and his withdrawals, $1,000. B. Bramhall's investment was $5,500 and his withdrawals $600. By agreement losses and gains are to be divided equally between the two partners. (10)

(3) On pages 2 and 3 write the cash book entries, omitting explanations; on page 4 (first 16 lines) write the sales book entries, using the remainder of this page for your journal. No purchase book is used. On page 9 write the account sales register entries, and on page 10 make out the account sales of M. Smith & Co. Follow the Commission Set as a model. Balance and rule up the books when completed.

March 1, 1910.—Student invests this day his balance in the Corn Exchange Bank, $6,424.11.

March 2.—Shipped Homer Davis, Baltimore, Md., to be sold on my account and risk, 100 ch. Y. H. Tea, 5,000 lbs. at 40c.

March 3.—Received of M. Smith & Co., Toledo, Ohio, consignment of 400 crates tomatoes. Paid freight on same, $30.

March 3.—Drew a draft at 30 days from date on Homer Davis, which he has previously agreed in writing to accept, and gave same to Trader's Bank for presentation, $300.

March 4.—The Colonial Bank presents a draft drawn at 20 days' sight on you by M. Smith & Co., which you accept payable at the Corn Exchange Bank, $200.

March 5.—Sold Hynes & Co., City 2/10 n/60 400 crates tomatoes from M. Smith & Co.'s consignment No. 1, $1.

March 6.—Closed M. Smith & Co.'s consignment No. 1 and rendered them an account sales; charges, $20; insurance, $5; commission, 5%; net proceeds due in 30 days.

March 6.—Received of Moore & Son an account sales of butter shipped them April 29, showing commission, $20; charges, $15; net proceeds due in 30 days, $670.

March 7.—Sold R. Moon, City, 2/10 n/60 from merchandise account 200 crates eggs, 6,000 dozen at 20c., $1,200.

March 8.—Received an account sales from Homer Davis for shipment of March 2, showing commission, $125; charges, $40; insurance, $3; advances, $300; net proceeds remitted by N. Y. draft, $2,032.

March 9.—Received of Bardwell & Co., their check for invoice of February 28; terms 2/10 n/60; amount of invoice, $600.

March 10.—Paid National Dispatch Co. check for freight $75, of which $15 was on the shipment of Homer Davis, and $40 was on consignment of Ahner & Co. received this day.

March 11.—Received of Hayden & Co., St. Louis, Mo., consignment of 1,000 bushels wheat. Paid freight, $50.

March 12.—Sold H. Ryker, City, 2/10 n/60 from Hayden & Co.'s consignment No. 1, 1,000 bushels wheat at $1.

March 13.—Rendered an account sales for Hayden & Co.'s consignment No. 1; commission, 5%; charges, $4; net proceeds remitted by check.

March 14.—Paid by check Rice & Pond's invoice of February 15, 2/30 n/60. Amount of invoice, $1,000. (45)

(4) On page 5 from the following Trial Balance and inventories prepare a Profit and Loss Statement for the month of December. Profits and Losses are to be divided equally between the partners.

TRIAL BALANCE, DECEMBER 31, 1910.

J. B. Finch (partner)	$100.00	$9,000.00
L. A. Lewis (partner)	200.00	9,000.00
Furniture and Fixtures	350.00	
Real Estate	14,000.00	
Charges		50.00
Horse and Wagon	500.00	
Office Supplies	90.00	
Merchandise Discount	110.00	
Shipments	1,800.00	950.00
Merchandise	11,000.00	7,000.00

Freight	$75.00	
Gray & Co.	1,125.00	$600.00
Notes Receivable	2,000.00	1,100.00
Expense	150.00	
Consignments	600.00	2,100.00
Holmes & Co.		1,000.00
Commission		250.00
Notes Payable	2,000.00	6,000.00
Cash	2,950.00	
	$37,050.00	$37,050.00

On hand: Merchandise, $7,000; Office Supplies, $40; Unsold Shipments, $1,100. Insurance paid in advance, $20. Allow for depreciation: Real Estate, 2½%; Horse and Wagon, 12½%; Furniture and Fixtures, 5%. (30)

3. *University of the State of New York*

200th High School Examination

ADVANCED BOOKKEEPING

Write at the top of the first page of your answer paper (a) the name of the school where you have studied, (b) the number of weeks and recitations a week that you have had in bookkeeping.

Three recitations a week for one school year in addition to four recitations a week in elementary bookkeeping for another school year, in a recognized academic school, is the regular requirement, and any statement showing less or other than this should be accompanied by a satisfactory claim or explanation made by the candidate and certified by the principal; otherwise such paper will be returned.

Answer all questions. Ruled paper *should be used, but the candidate will be held responsible for the ruling called for by the questions. In rating papers the credits will be assigned as follows: changing to double entry 25, journal 10, sales book 10, purchase book 10, cash book 18, sales ledger 5, purchase ledger 5, main ledger 10, final result, 7.*

1-10. Martin Sullivan of North Tonawanda, N. Y., invested Jan. 2, 1909, $12,500 in the wholesale grocery business and kept his books by single entry. He directs you, his bookkeeper, to change to the double entry system on Jan. 3, 1910. You find the following property on hand: store and lot, $5,000; horses and wagons, $1,800; office furniture, $695; merchandise, $6,879.25. The cash book shows a balance of $4,284.10 on hand. Sullivan also holds a non-interest-bearing note of Porter Montgomery, dated Dec. 15, 1909, for $750; he has outstanding an acceptance dated Dec. 31, 1909, in favor of John Horman, drawn by Henry Dickson at 20 days for $919. His ledger shows the following open accounts:

	Dr.	Cr.
Martin Sullivan, proprietor..........	.....	$12,500.00
D. F. Mason........................	$869.10	500.00
George C. Allen....................	306.00	780.00
Smith & Baker......................	532.75	1,441.60
Robert Aldrich	995.00	226.50

Take all the steps necessary to change to the double entry system, showing and proving your work by a trial balance and putting the old ledger in shape to be continued as the main ledger of the new books.

The books of original entry to be used in the new set are journal, sales book, purchase book and cash book. All original entries must be clearly explained. In addition to the main ledger already opened, a sales ledger and a purchase ledger are to be kept.

In addition to the general columns, use special columns in the cash book, on the debit page for Mdse. Disc. Dr., Accts. Rec. Cr., (cash sales), on the credit page for Mdse. Disc. Cr., Accts. Pay. Dr., Expense Dr.

In the journal, use special columns for Accts. Pay. Dr. and Accts. Rec. Cr., in addition to the general columns.

Make all necessary entries and postings for the following:

Jan. 3, 1910.—Paid cash for new books and stationery, $38.50. Bought of Burton Bros., Buffalo, N. Y., 50 cases baking powder @ 3.60; 250 1-lb. cans cocoa @ 48c.; 144 1-lb. tins sweet chocolate @ 29c.; 1,250 lb. plain Rio coffee @ 24c. Terms 3/10 n/60.

Jan. 4.—Sold Gordon Cook, North Tonawanda, N. Y., 4 mats; 300 lb. fancy Java coffee @ 30c.; 6 bbl. oatmeal @ $6. Terms 2/5 n/30. Sold Robert Johnson, city, 15 20-lb. boxes London layer raisins @ 10c. per lb.; 2 bbl., 650 lb., standard A sugar @ 5c. Terms 2/10 n/30.

Jan. 5.—Bought for cash new office safe, $450.

Jan. 6.—Bought of Porter Bros., New York, 6 bbl., 300 gal., New Orleans molasses @ 30c.; 10 bbl., 3,250 lb., granulated sugar @ 5c. Terms, 2/5 n/30.

Jan. 7.—Bought of Jones & Colby on account 1,000 bbl. roller process flour @ $5.50. Cash sales of merchandise to date, $566.75.

Jan. 8.—Received N. Y. draft from Gordon Cook for amount of bill of Jan. 4, less discount.

Jan. 10.—Sold J. L. Masten, Niagara Falls, N. Y., 50 200-lb. bags ice cream salt @ 57c. per bag; 5 bbl., 1,625 lb., standard A sugar @ 5c. Terms, 30 days, net.

Jan. 11.—Sent Porter Bros., N. Y., draft for amount of invoice of Jan. 6, less discount.

Jan. 12.—Gave Jones & Colby a note at 30 days for $1,500 to apply on account of invoice of Jan. 7.

Jan. 13.—Sent Burton Bros. check for amount of invoice of Jan. 3, less discount.

Jan. 14.—Received from J. L. Masten a draft at 10 days from date on Bouton & Co. for $75, which they have accepted. Robert Johnson paid by check his bill of Jan. 4, less discount. Cash sales to date, $664.90. Bought for office use 6 tons of coal @ $6.75, paying by check.

Show your proprietor's net loss or gain and present worth on Jan. 16. Inventories are furniture and fixtures, $1,137.50; merchandise, $12,018.40; real estate and horses and wagons remain unchanged.

4. *Department of Education* *The City of New York*

HIGH SCHOOL OF COMMERCE

EXAMINATION IN ADVANCED BOOKKEEPING

Time—9:15 A. M. Candidate's No........

1. After the model of the Manufacturing Set, omitting explanations, journalize these transactions:

(1)

Under voucher No. 625 issued for payroll, you pay cash as follows:

(*a*)	To men working in factory....................	$3,000
(*b*)	To men supervising above....................	100
(*c*)	To men working on books and other records....	150
(*d*)	To President, Treasurer and Directors for salaries, fees, etc..........................	500
(*e*)	To J. B. Smith, a salesman, $250, of which $100 was for expenses.	

(2)

Under voucher No. 921 you pay cash for 6 gross pens, $3.

(3)

Sold Dodge & Rice, 2/10 n/60 bill of goods amounting to $982.95.

(4)

Received check in payment of the above within ten days of date of sale.

(5)

Bought of T. C. Perkins, 5/10 n/90 240 ft. insulated copper wire @ $19.50.

(6)

Bought of Perry Bros., for cash, 100 window pieces @ $1.50 for wing of factory being erected, and 10 window pieces @ $2.50 to replace old ones in main building.

(7)

Drew check for petty cash of $100.

(8)

Paid Colonial Bank cash $1.50 for protest fees on J. B. Eliot's 90-day note.

(9)

You hold Rich, Lantz & Co.'s 90-day note for $500 and their account shows a balance due you of $700. With other creditors you agree to accept payment on basis of 75 cents on the dollar and check for that amount is received.

(10)

J. H. Steele & Co. return with your consent 5 cases shoes @ $85.

(11)

E. M. Lyon sends you check in payment of invoice amounting to $2,570, on which he is entitled to 2% discount; amount of check received, $2,528.60.

2. **From the following Trial Balance and inventories, prepare a Profit and Loss and Income Statement for the year ending December 31, 1910.**

TRIAL BALANCE, DECEMBER 31, 1910.

Cash	$103,420.16	
Plant and Machinery	120,579.84	
Accounts Receivable	60,261.19	
Fuel, Light and Oil	6,000.81	
Discount on Sales	25,000.00	
Bills Payable		$75,500.00
Mill Supplies	15,000.00	
Sales		545,000.00
Bills Receivable	50,000.00	
Capital Stock		200,000.00
Inventory, Mfd. Goods, 1/1/10	60,000.00	
Merchandise Returned	3,000.00	
Freight Inward	4,000.00	
Vouchers Payable		93,807.00
Taxes on Plant	500.00	
Labor	130,000.00	
Discount on Purchases		31,962.19
Officers' Salaries	26,150.00	
Salesmen's Salaries	40,950.00	
Insurance on Plant and Machinery	1,200.00	
Foremen's Salaries	9,000.00	
Materials	262,980.50	
Interest and Discount		6,160.31
Petty Expense	4,125.92	
Advertising (Sales Dept.)	15,260.58	
Collection and Exchange	900.50	
Salesmen's Traveling Expenses	14,100.00	
	$952,429.50	$952,429.50

INVENTORIES, DECEMBER 31, 1910.

Materials	$37,000.00
Unpaid Factory Labor	5,000.00
Finished Goods on Hand	24,980.50
Mill Supplies	5,000.00
Depreciation on Plant and Machinery, 10%	
Reserve for Bad Debts	2,000.00

(65)

5. From the MANUAL OF EXAMINATIONS, United States Civil Service Commission, 1912.

INSTRUCTIONS—On the blanks furnished make the necessary double entry journal entries for the transactions found in the memoranda below. Keep bank account separate from the cash account. Make no day-book entries.

March 1, 1905.—Thomas Morris opened new books with the following resources: Cash in Citizens' Bank, $7,800; cash in safe, $2,687.50; merchandise, $4,768; real estate, $9,750; an account against William Rose, $2,360; a note given by James Wilson for $1,287.50, due in six months without interest, accounted at its present worth, $1,250.

His liabilities were an account due John West, $2,976; a note for $900 due Arthur Moore, accrued interest to date, $27.50; an acceptance at fifteen days for $840, dated February 15, 1905, drawn upon him by Abraham Naylor in favor of Joseph Kemp.

March 2.—Bought of Jones Bros. merchandise, $5,400. Gave in payment a note at six months, interest, $90, included in the face of note, $3,090. Balance on account.

March 6.—Sold to Samuel Aikens merchandise, $2,600. Received in payment the acceptance mentioned in liabilities, $840, and a draft on Chase Chemical Bank for balance (not deposited).

March 13.—Morris sold to John Kelso a half interest in the business for $13,000 in cash. (Account the difference between this valuation of the business and the valuation as shown by the opening entry as good will).

March 18.—Sent Jones Bros. a draft at ten days' sight, drawn by us upon William Rose in favor of Jones Bros. Face of draft, $600.

March 25.—Bought of James Wilson, merchandise, $2,400. Gave in payment his note mentioned in resources. Face of note, $1,287.50; present worth, $1,254.87. Balance on account.

March 27.—Sold Jarvis & Co., merchandise, $3,600. Received in payment a sight exchange for $800 on New York, accepted at ⅛ per cent. premium, and their note at twenty days for balance.

March 29.—Paid by check on Citizens' Bank the note due Arthur Moore mentioned in liabilities. Face of note, $900; accrued interest to date, $31.70.

March 30.—Discounted at the Citizens' Bank our note at six months, and received credit for proceeds. Face of note, $800; discount, $24.

Second Exercise

From the data given below make out a balance sheet which shall include a trial balance, the inventory, and statement of losses and gains, proprietors' accounts, and resources and liabilities.

On March 1, 1905, Charles Martin had on hand as per inventory merchandise, $5,400; real estate, $7,600; unused office stationery, $20.75. The balance of the cash account, as shown by the ledger, was $3,640, and the balance of the bills payable account was $2,365. The footings of the other ledger accounts were as follows:

Debit footings: Charles Martin (proprietor), $970; merchandise, $12,800; real estate, $8,000; Traders' Bank, $4,780.25; bills receivable, $4,620; expense, $90.25; interest and discount, $148.60; Joshua Miller, $2,897.50.

Credit footings: Charles Martin (proprietor), $6,797.85; merchandise, $7,800; real estate, $120; Traders' Bank, $3,600; bills receivable, $3,640.75; interest and discount, $197.80; Joshua Miller, $.......... (amount to be supplied by the competitor).

6. MUNICIPAL CIVIL SERVICE COMMISSION, NEW YORK

BOOKKEEPER, FOURTH GRADE. SPECIAL.

Handwriting and Neatness to Be Rated on 1 and 3

1 to 3. Show in proper form the cash entries that should result on the books of A, B, C and D, from the following set of transactions: On Jan. 2, 1906, A buys of B 7,000 pcs. of flannelette, 45 yds. to the piece, at 6½ cts. per yd., terms 5% off for 60 ds., giving note due Mar. 3, which note at maturity is liquidated by the payment of $10,000, together with a new note at three months, bearing interest at the rate of 6% per annum. On Apr. 1 this note is discounted for B by the X State Bank, and on Apr. 15 is taken up by A with check on the Y Nat'l Bank, A obtaining the necessary funds for settlement by borrowing $2,000 from C, and negotiating a call loan at 2% from the Y Nat'l Bank with which he pledges 100 shares of R S T stock, par value $100 per share, market value 105. On Jan. 10, 1906, A sells to D 1,000 pcs. flannelette, 45 yds. to the

pc. at 8 cents a yard, terms 2% off—4 mos. Settlement for this purchase is made May 10, an allowance having been claimed of $15 and admitted by check, which is deposited in the Y Nat'l Bank by A, May 11. The following day A takes up his call note by paying to the bank the proceeds of this check, less $2,000, which he repays to C, giving the bank a new note, due Nov. 1, at 5%, endorsed for accommodation by C. When this note falls due it is not paid, and is accordingly protested (protest charges, $2.63), and is finally taken up by C on Dec. 2. On Dec. 10, A makes settlement with C by giving him a mortgage on his house for $10,000. The balance, due in settlement of the transactions between A and C, is settled by check, A allowing C $100 for expenses of searching, recording, etc.

4 to 6. Show all the other postings that should result from the above mentioned transactions on the books of A.

7. The firm of A, Z & Co. is about to be turned into a stock company, with 2,000 shares of $100 (par value) each, one-half 6% preferred, one-half common. It owes, for merchandise, $50,000, and has doubtful accounts receivable of $40,356, estimated to be actually worth $30,000 net. In addition expert appraisers' schedules show the following: Merchandise completely manufactured, $100,000; B/R'ble, $11,500; Accts. R'ble Guaranteed (in addition to those mentioned above), $10,100; Furniture and Fixtures, $2,400; Mdse. partly finished, $40,000; Cash, $1,000; Industrial stock (par value $7,000) estimated at $5,500; Trademarks, Copyrights, etc., $19,000; Real Estate (mortgaged for $10,000), $20,000; Tools, Lathes, etc., $2,500. At what sum must the good will be estimated in order that the total assets may appear equal to the total liabilities on the books of the new company?

8. The P Q R Co. has the following resources and liabilities on Jan. 1, '06: Resources—Fixed assets, $100,000; Receivables, $550,000; Cash, $150,000. Liabilities—Capital Stock (par value), $1,000,000; Accts., etc., payable, $200,000. Is the company solvent? Would it be solvent if the fixed assets proved to be worthless and the receivables realized only $100,000? Would your answers be different if instead of the capital stock being $1,000,000 the capital stock were $500,000, and the bonded debt $500,000 (6% mtge. bonds), due 1925? Give full reasons for all your answers.

9. On Jan. 7, '06, W, a fruit grower and dealer, consigns to Y, a New York commission merchant, 100 crates of berries, 40 boxes to the crate, at the same time drawing on consignees at sight for $100. The freight charges amount to $17.28. One-fourth of the goods is spoiled so as to be unsalable through the negligence of the R. R. Co.,

which pays $50 damages to Y in settlement of claim for reimbursement, and of the remaining boxes of fruit, one-third is sold at 5 cts. a box, and the balance at 10 cts. a box, cash, on July 10, the auction and commission charges being 5%. W's draft is paid by Y on July 8. Prepare a statement to be sent on July 20, from Y to W, with check in settlement of account to that date, interest being charged and allowed at the legal rate.

10. The X Company starts business Jan. 1, '05, with a capital stock of $100,000 and a bonded debt of $100,000. The bonds are 5% fifty-year bonds. On Dec. 31, '05, its resources and liabilities, exclusive of stocks and bonds, are as follows: Real Estate, $500,000; Cash, $20,000; Receivables, $100,000; Bills and Accts. Payable, $14,000. There must be a sinking fund contribution of 2% and a 10% reserve for depreciation. After these deductions what rate of dividend can be paid? Under the circumstances outlined above can it be paid in cash? If so, how? If not, how? Give reasons for your answers.

7. MUNICIPAL CIVIL SERVICE COMMISSION, NEW YORK

ACCOUNTANT—FIFTH GRADE

Date: May 15, 1912.

TECHNICAL—WEIGHT 7

Part I. To Be Finished by 12:30

Theory of Accounts

1. On what general principles is double entry bookkeeping based?

2. Describe the process of changing a set of books from single to double entry. Give an example.

3. A mining corporation has assets comprising, among others, leases, goodwill, patents, rent and royalties paid in advance. How would you deal with them in the profit and loss account and balance sheet?

4. The budget of a municipality includes appropriations for five separate departments. Set up such accounts as you believe will cover the financial operations incident thereto, with supposed receipts and disbursements.

AUDITING

5. State the objects to be attained by an audit.

6. In case of an unexplained absence of a bookkeeper, who has had the entire charge of a set of books, state the steps that should be taken to determine whether or not irregularities had been committed.

7. A company takes a large number of notes (bills receivable) from its customers, and when in need of funds discounts or sells them. What accounts, if any, should appear to care for the contingent liability thus created to satisfy you as Auditor?

8. Give examples of such assets and liabilities, not usually found on books of accounts, as should be considered by the Auditor when preparing an income and profit and loss account at the close of the fiscal period.

PRACTICAL ACCOUNTING

I

9 and 10. The Washington Company is organized under the laws of the State of New York to conduct a manufacturing business. The authorized capital is $500,000.00, divided into $250,000.00 common and $250,000.00 preferred stock, par value of shares $100.00. Five incorporators subscribe each for one share of common stock at face value. John Peters, one of the incorporators, purchases from three manufacturing companies their complete plants for $499,500.00, and transfers said plants to the Washington Company for the remaining $499,500.00 of common and preferred stock and $100,000.00 of First Mortgage 5% bonds out of a total issue of bonds amounting to $150,000.00, leaving $50,000.00 of bonds in the treasury. The incorporators then pay in cash for their respective subscriptions.

The individual assets acquired are as follows:

Land and Buildings	$75,000.00
Plant and Machinery	200,000.00
Tools, Equipment and Fixtures	50,000.00
Inventories	100,000.00
Accounts Receivable	33,000.00
Cash	12,000.00

Required: (a) Opening entries for the books of the Washington Co.; (b) Initial Balance Sheet, showing the Company's financial condition.

II

11 and 12. The American Trading Company has been granted permission to dissolve its corporate existence. You are consulted about the procedure of closing its books and are given the following information:

An abstract of the Ledger, on July 15, 1910, discloses:

Land and Building	$30,000.00
Plant and Machinery	50,000.00
Merchandise Inventory	22,500.00
Notes Receivable	10,500.00
Accounts Receivable	16,800.00
Contingent Fund	15,200.00
Mortgage Bonds (on machinery and plant)	25,000.00
Accrued Interest on the mortgage	52.00
Notes Payable	27,000.00
Accounts Payable	28,000.00
Capital Stock (authorized, issued and outstanding)	50,000.00
Reserve for depreciation of plant and machinery	9,500.00
Reserve for depreciation of buildings	1,950.00
Reserve for Contingencies	15,200.00
Surplus	798.00

There is a balance in the bank of $12,500.00.

A report rendered by the Secretary for the Company shows the result of the realization as follows:

The mortgagees bought the plant and machinery for $35,000.00, paying cash for the difference between the amount of the mortgage and the accrued interest and the purchase price. The land and buildings were sold for $33,000.00. The inventory of merchandise was disposed of for $20,000.00. The Notes Receivable were paid; the Accounts Receivable realized $15,150.00, and the securities of the Contingent Fund realized $14,700.00.

All Notes Payable and Accounts Payable were paid, and the expense of realization and liquidation amounted to $3,200.00. Required: (a) All closing entries for the dissolution of the Company. (b) A statement of realization and liquidation showing the amounts distributed to the stockholders.

8. THEORY OF ACCOUNTS

University of the State of New York

33d Accountant Examination

Tuesday, June 25, 1912—9.15 A. M. to 12.15 P. M. only

"The Regents of the University shall make rules for the examination of persons applying for certificates under this act, and may appoint a board of three examiners for the purpose * * *" (Laws of 1896, ch. 312, sec. 2).

Answer 10 questions but no more, selecting at least two questions from each group. Answers in excess of the number required will not be considered. Do not repeat questions, but write answers only, designating by number as in question paper. Check (v) the numbers of each one of the questions you have answered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

Group I.

1. Reduce the single entry system to a few accounting equations that will embody all its basic principles.

2. What is the relation of nominal accounts to real accounts? How do these accounts fulfil the purpose for which they are created?

3. Describe (a) a self-balancing ledger, (b) the voucher record. How is the former operated? Are claims made for the latter justified?

4. Submit a ruled form of a capital stock ledger that will permit the recording of all the information required of that book by the New York Statute.

5. State *two* different theories in relation to the presentation of a balance sheet as far as classification is concerned. What is the reasoning on which they are based?

Group II.

6. State *two* ways of treating consignments inward, when goods are to be sold subject to commission at the price at which they are consigned. Give the arguments for and against each method and your views thereon.

7. How does the Interstate Commerce Commission require reserves to be presented on the balance sheets of common carriers?

8. State your opinion in regard to the technic of journalizing. Show wherein your view is in accord with the evolution of the books of account.

9. A company has leased ore-bearing lands capable of producing 50,000 tons of ore on the basis of a royalty of 10 cents on each ton of ore mined, and has guaranteed a minimum royalty of $1,200 a year. At the expiration of the first year the minimum royalty has been paid, although no ore has been mined. What journal entry would you make in connection with the foregoing? Explain.

10. After due foreclosure proceedings A sells for $20,000 the land and buildings mortgaged to him by B, to whom he had loaned $26,000. There is no question about the regularity of the sale, the loss being due to a drop in real estate values. The property sold is located in Westchester County and the mortgage is recorded in White Plains, N. Y. Journalize the transaction on the books of A.

Group III.

11. What reason can you give for the creation of a reserve for a sinking fund when the reserve is not to be funded? Explain fully.

12. When preparing a statement of realization and liquidation in the case of a company dissolving itself, how would you treat reserves for depreciation? State *three* methods of treating the matter, and give reason for your preference.

13. A title insurance company collects its fees for searches and insurance, on signing the contracts with the clients. The work to be done may extend over several months. Suggest a method of recording whereby the income may be spread over the period in which the expense is incurred.

14. A street railway company has been granted a franchise for a new line; the legal expenses incident to the grant have amounted to $5,000; the cost of the consents has been $22,000; the cost of paving the streets between the tracks, which was a condition of the franchise, has been $425,000. Journalize the above and give reason for your entries.

15. A has received notice from his life insurance company that a dividend of $9 has been declared on his policy. He elects to accept a "reversionary addition" of $15 to the principal of his policy, in lieu of a cash dividend. Journalize the transaction on the books of the insurance company.

9. PRACTICAL ACCOUNTING—PART I

University of the State of New York

33d Accountant Examination

Tuesday, June 25, 1912—1.15 to 4.15 P. M. only

(The practical accounting paper consists of part 1 and part 2.)

"The Regents of the University shall make rules for the examination of persons applying for certificates under this act, and may appoint a board of three examiners for the purpose. * * * (Laws of 1896, ch. 312, sec. 2.)

Answer two questions but no more. Answers in excess of the number required will not be considered. Do not repeat questions but write answers only, designating by number as in question paper. Check (v) the number of each one of the questions you have answered. Each complete answer will receive 25 credits. Papers entitled to 75 or more will be accepted.

1. From the following trial balance, after closing, taken from the general ledger of a railway company June 30, 1910, and from the notations found below, prepare a general balance sheet that will meet the requirements of the Interstate Commerce Commission:

Cash—deposited at interest	$100,000	Loans payable	$400,000
Cash—deposited not at interest	55,000	Traffic and car service balances	171,400
Working funds....(1)	15,000	Audited vouchers unpaid	275,000
Cash in transit	10,000	Wages unpaid	55,000
Agents' and conductors' balances	30,000	Other accounts payable	79,800
Traffic and car service balances	172,000	Interest and rents accrued	139,500
Other accounts receivable	22,000	Taxes accrued	20,500
Investments .....(2)	950,000	Capital stock authorized, preferred	3,000,000
Insurance fund	92,000	Capital stock authorized, common	7,000,000
Deposits to insure performance of contracts	30,000	General mortgage bonds, authorized	5,000,000

Road and equipment (3)	$15,000,000	Equipment trust certificates, authorized.	$2,000,000
Other real estate..(4)	1,000,000	Reserve for depreciation, road and equipment	2,300,000
Materials and supplies	325,000	Reserve for general mortgage bonds....	600,000
Accrued interest and rentals	130,800	Reserve for claims and injuries....(6)	60,000
Discount on bonded indebtedness	52,000	Reserve for contingencies	40,000
Equipment trust certificates sold...(5)	65,000	Profit and loss surplus	1,262,600
Equipment trust certificates unissued...	1,235,000		
General mortgage bonds unissued.....	1,500,000		
Capital stock unissued, common	1,000,000		
Claims in process of collection	20,000		
Cash in securities in redemption fund...	600,000		
	$22,403,800		$22,403,800

(1) Advanced to general and special agents, officers and employees, for expenses.

(2) Stocks of steamship and transportation lines not in the system; pledged to secure loans payable $650,000; unpledged, $300,000.

(3) Prior to June 30, 1907: Road, $9,000,000; equipment, $3,000,000. Subsequent to June 30, 1907: Road, $1,800,000; equipment, $800,000; general expenditures, $400,000.

(4) Not required for operation of the road.

(5) Deposited with trustee pending delivery to the railway of the portion of the equipment that the proceeds of the bonds are to pay.

(6) Created by charges to operating expenses.

2. An examination of the books, records and accounts of the Pinta and Mercedes Mining Co., for the month of June, 1911, discloses:

Materials and supplies consumed, $9,300; wages: miners, $1,530; surfacers and warehouse men, $475; stable men and drivers, $175; general labor, $45; administration expenses, $4,250; taxes, $130.40;

balance of wages unpaid, $135; royalties paid on leased lands not operated, $125; feed consumed and sundry stable expenses, $330; spent out of funded reserve for injuries, $500.

Mining operations: ore mined, 1,020 tons; brought to the surface and warehoused, 950 tons; sent to the assay office, 1,115 tons; charged by assay office for analysis and assay, $10 per ton; cost of transportation to assay office, 20 cents per ton; shipped from assay office to Mexican Smelters Co., 1,295 tons; sale price, $40 per ton; cost of shipment, 45 cents per ton; charged by smelters for difference in assay, $200. Ore inventories, May 31, 1911: in assay office, 180 tons, $399; in mine galleries, 250 tons, $375; in warehouses, 500 tons, $1,000.

Reserves: for leveling of land, $50; for depreciation of machinery, $300; for exhaustion of mines, 10 cents per ton. Repairs to machinery amount to $50, and are included in administration expenses.

Discarded during the period seven narrow gauge wagons, cost altogether, $350, aggregate residual value, $20.

Prepare a statement of income and profit and loss for the month of June, 1911, showing the ton status and the location of the ore inventories on June 30, and the labor and transportation cost per ton of ore surfaced and warehoused, sent to assay office and shipped.

NEW YORK C. P. A. EXAMINATION OF JUNE, 1912

PRACTICAL ACCOUNTING—PART II

(Same heading as Part I.)

4. TRIAL BALANCE OF THE GENERAL LEDGER OF JOHN DOE, CIVIL ENGINEER, DECEMBER 31, 1911

Cash	$10,572.44	Manhattan Construction	$5,000.00
Furniture and fixtures	1,054.68	Report No. 1 Sewanee Creek Railroad	5,300.00
Real estate (Rutherford home)	6,000.00	Report No. 2 Englewood Reservoir	4,500.00
Investments in stocks	15,457.50	Report No. 3 Long Acre Library	3,200.00
Investments in bonds	3,000.00	Connecticut Tramways Company	1,950.00
Missouri Pacific—margin account	13,000.00		
Accounts receivable	15,361.32		

General expense......	$9,800.00	Earnings—consulting .	$2,000.00
Interest	1,060.00	Report fees...........	16,000.00
		Sharp & Co., brokers..	11,310.00
		Stocks and bonds.....	4,300.00
		Capital	21,745.94
	$75,305.94		$75,305.94

Analysis:

General Expense—Salaries: John Doe, $6,000; other salary, $1,800; rent, $1,000; advertising, $600; cables and telegrams, $90; stationery and printing, $110; other expenses, $200.

Interest—Debited with $1,300, charged by Sharp & Co., brokers, on margin account; reduced by dividends of $390, credited by Sharp & Co. on margin account. Balance on loans since paid.

Manhattan Construction Co.—Represents consulting fees received during the year 1911, the contract running from month to month, with no expense to John Doe.

Reports 1 to 3 are completed and delivered. Account contains fees, less expenses.

Connecticut Tramways Co.—Represents $2,000 received November 1, 1911, and expenses of $50; according to terms of contract, John Doe is to act as consulting engineer for 10 months, and to receive altogether $5,000.

Report Fees—Fees received under contract for report; $9,000 received on contracts on which no work has been done; balance is earned.

Stocks and Bonds—Are sold. Account represents balance.

Additional Facts—Dividends on stocks received during the year amount to $1,985, of which $1,000 was applied to the account Investment Stocks and $985 was applied to Stocks and Bonds sold.

Prepare (a) a balance sheet at December 31, 1911, with your certificate attached, (b) an income statement showing John Doe's true earning power as a civil engineer, (c) the journal entries supporting your adjustments of the books, if any.

5. The following is the trial balance of the Rawdeal Co., June 1, 1911, on which day the directors of the company resolve that the secretary of the company be authorized to call a meeting of the stockholders to vote on the immediate dissolution of the company:

Land	$15,000.00	Bond secured by mort-	
Buildings and realty		gage 6%...........	$26,000.00
fixtures	40,000.00	mortgage	312.00
Machinery and machine		Interest accrued on	
tools	35,000.00	bond secured by	
Shop and hand tools		Accounts payable.....	21,700.00
(in store)..........	5,000.00	Reserve for deprecia-	
Furniture and person-		tion of building....	5,300.00
alty fixtures........	9,700.00	Reserve for deprecia-	
Raw materials and		tion of machinery...	8,000.00
freight thereon......	10,350.00	Reserve for deprecia-	
Accounts receivable....	23,400.00	tion of furniture and	
Cash in bank and in		fixtures	5,100.00
offices	11,320.00	Surplus	23,358.00
		Capital stock, author-	
		ized, issued and out-	
		standing	60,000.00
	$149,770.00		$149,770.00

The stockholders' meeting was held on July 1, 1911, and the dissolution took place. The company sold the building and its equipment to the mortgagee for $34,000 as of August 15, 1911. On September 1, 1911, the cash book showed:

Debits: Building and realty fixtures, $7,454; machinery, $23,340; shop and hand tools, $2,100; furniture and fixtures, $3,700; raw materials, $7,950; accounts receivable, $23,130.

Credits: Accounts payable, $21,700; expenses, $1,530.20.

Prepare (a) the journal entries affecting the dissolution of the company, (b) a statement of realization and liquidation that will show the per cent. received by the stockholders on their holdings.

6. On April 30, 1911, St. John & Co. and Carpel Bros. enter into a joint venture agreement. They each contribute $4,000, with which they pay for goods that are shipped on May 1 to John Doe, of San Francisco. St. John & Co. advance $400 to defray freight and incidental expenses. John Doe, the consignee, is allowed 10% on the cost of the goods, and is to sell them at whatever price he can obtain for them.

On June 1, 1912, on the strength of a report sent by wire, Carpel Bros. draw at sight on John Doe for $4,000 to the order of Carl Peter, of New York. On July 1, 1912, St. John & Co. receive from the consignee a check for $11,200, all the goods being sold; on the same day St. John & Co. settle with Carpel Bros. Interest at 6% is allowed on all the transactions affecting the partners in the venture.

Prepare all the ledger accounts brought about by the above, on the books of St. John & Co., including a joint venture account. (Construct your ledger accounts in such a manner that they will explain fully what took place, and make a cross reference possible.)

10. NEW YORK C. P. A. EXAMINATION OF JUNE, 1912

University of the State of New York

33d Accountant Examination

AUDITING

Wednesday, June 26, 1912—1.15 to 4.15 P. M. only

"The Regents of the University shall make rules for the examination of persons applying for certificates under this act, and may appoint a board of three examiners for the purpose. * * * *" (Laws of 1896, ch. 312, sec. 2.)

Answer 10 questions but no more, selecting at least two questions from each group. Answers in excess of the number required will not be considered. Do not repeat questions but write answers only, designating by number as in question paper. Check (v) the number of each one of the questions you have answered. Each complete answer will receive 10 credits. Papers entitled to 75 or more credits will be accepted.

Group I.

1. If you were sent to make the first audit of a concern, what are the steps you would take?
2. What condition of office organization, above all others, leads to fraud and defalcation by bookkeepers and cashiers? Support your opinion.
3. In making an audit of a concern doing a mercantile business, what would you require to enable you to certify to the correctness of the inventory of merchandise that they had prepared?
4. What means would you employ to verify the usual cash receipts of the average social club?
5. Give at length your views on the "ethics" of accountancy.

Group II.

6. Assuming that you are a certified public accountant and employed as auditor by a corporation, state what you would consider it your duty to do in order to safeguard your clients regarding the fire insurance that they carry on their stock of merchandise.

7. A foreign agent of a life insurance company sends monthly the following data: a report showing his receipts and disbursements, with dates; vouchers supporting the disbursements; list of overdue premiums; a statement of his daily cash balances in bank, supported by a certificate from his bank as to his closing balances. How would you audit his report?

8. A company has acquired, at $90 per share, 100 shares of its own capital stock, of the par value of $100 per share. Its balance sheet shows treasury stock, $9,000. Is this correct? If so, why? If not, state how you would adjust the books?

9. Describe briefly the way you carried out an audit which you planned and conducted personally.

10. In auditing the books of a corporation capitalized at $250,000, you find that three years previously they acquired the business of a copartnership, included in which was an asset called goodwill valued at that time at $25,000, since which the same has not been written down. The average profits of the corporation for three years have been 9% on the capitalization. How would you treat the item goodwill? Give reasons.

Group III.

11. What steps would you take to audit the Notes Receivable Purchased and the Notes Receivable on Commission held by a commercial paper house to satisfy yourself that there had been no fraud by substitution?

12. The cashier of a concern is at the same time its bookkeeper. During his absence on vacation slight irregularities are discovered, and you are engaged to audit his books. He returns on the day you begin your audit and admits a defalcation of $5,000. Knowing that his receipts were supposed to be deposited daily in the bank, state the steps you would take to ascertain the truth of his admission.

13. The result of your count of the "cash on hand" at a large agency on January 1, 1912, discloses:

Bills	$1,979.00
Coin	484.19

Cash items supported by properly signed vouchers:

Jan. 14, 1908.	Sub-agent Jones.............	$200.00	
July 20, 1909.	Sub-agent Thomas...........	140.00	
Aug. 20, 1909.	Sub-agent Vincent...........	75.00	
Sept. 30, 1910.	Sub-agent Nelson............	230.00	645.00
	Cash balance as per general ledger..............		$3,108.19

Does this complete your duty as an auditor? If you consider that further steps are necessary, state what you would do.

14. What instructions would you give to a junior accountant to whom you had entrusted the audit of the account Investment in bonds and mortgages appearing on the books of a trust company?

15. You find that a concern whose books you are auditing has capitalized the amount of royalties that it would have had to pay on the sales of a three years' period if it had not owned the patents. On the increase of surplus thus obtained the directors have declared a stock dividend. Would you consider yourself called on to criticize the action of the directors? If so, state what would be the character of your criticism.

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